

JULY 1960

# CONCRETE



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**"Our customers get better concrete  
at no additional cost."**

**JOHN RIGBY, President and General Manager**  
Transit Mixed Concrete and Builders Supply Limited  
Affiliate of United Asbestos Corp., Limited  
St. Catharines, Ontario



**OPERATION CENTER**... where many of the factors necessary to manufacturing quality concrete are coordinated. Teletype communication with St. Catharines, Grimsby and Thorold... radio communication to trucks... and production quality control boards. At board—left: Eric Blake, General Superintendent. Right: Carl Ross, the local Master Builders field man.

"Since 1946, we've manufactured over 1,200,000 cubic yards of ready-mixed concrete. Our operation is 'manufacturing' in the true sense of the word. We use the best locally available materials—accurately proportioned to meet the engineer's rigid specifications, plus the contractor's needs for uniform plastic qualities. Then, we adjust our mixes for climatic conditions . . . temperature, humidity and wind.

"Put these together and you've got the performance specifications we strive to meet for every yard of concrete we manufacture . . . for a 3-yard sidewalk job or a 3,000-yard bridge project.

"Over 80% of our yardage has been manufactured with POZZOLITH—not as a specified admixture, but as one of our selected materials for concrete manufacturing. It reduces the total mixing water required—which improves both the plastic and hardened

qualities of the concrete. It also simplifies control of air. So POZZOLITH, plus the expert technical service of the Master Builders field and engineering staff, means a better building material for our customers at lowest cost to us."

Over 1,500 *quality-conscious* producers of ready-mixed concrete and concrete products are using POZZOLITH for similar reasons. They've found there's no equal to POZZOLITH . . . and to Master Builders field service. You and your customers can profit immediately with POZZOLITH. Call in the local field man now.

*The Master Builders Company • Cleveland, Ohio*  
Division of American-Marietta Co.  
World-wide manufacturing and service facilities

**Our 50th Year**

# **MASTER BUILDERS. POZZOLITH®**

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# A "Bargain" Part is NO Bargain

... when you consider  
the **EXTRA SAVINGS**  
you get using  
genuine **BESCO**  
parts in your  
**VIBRAPAC**



BESCO stripper shoe part for Vibrapac machine. Made of scientifically heat-treated alloy steel.

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Performance comes ahead of price, when you think in terms of *profit*. But how are you going to tell which of two parts is the better performer, when both look alike?

The surest way is to order the part with the yellow-and-black BESCO trademark. Behind the BESCO stamp of quality are exacting standards of engineering, manufacturing, and testing. Maximum resistance to abrasion, shock, and vibration is designed and built into a BESCO part.

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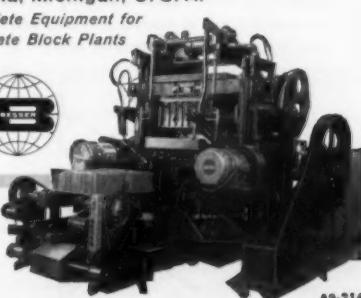
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## Erickson

Model F6-W — Capacity 6000 lbs.



*with 4-wheel design  
4-speed transmission  
6-cylinder Power*



**TOW IT!** F6-W Available with forks that swing up and lock out of way in seconds; and with rear towing attachment (shown above).

Here's a new Erickson with power to burn and steady balance ready to take on your toughest jobs on the roughest yards. An automotive type steering axle provides ground gripping 4-point contact. Power steering is effortless.

This new F6-W has a world of power with its 6-cylinder Continental F-226 engine. With 4 speeds both forward and reverse you get exactly the power-speed combination you need. Large 8.25 x 15" pneumatic drive tires and 7.50 x 15" steer tires give you unexcelled flotation and traction.

See the new F6-W at the Erickson Sales, Parts and Service dealer nearest you, or write to us for F6-W information and name of your dealer. We are represented across the U.S. and in Canada and Mexico.



**ERICKSON POWER LIFT TRUCKS, INC.**  
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# CONCRETE

For producers of concrete block, precast and prestressed concrete products and ready mixed concrete

DONALD T. PAPINEAU

*Publisher*

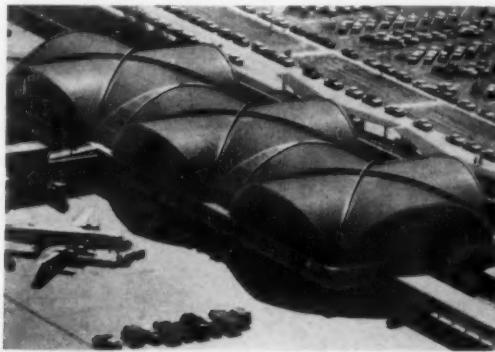
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## 14 Concrete—and the Revolution in Architecture

A special section reporting the history and development, design forms, promotion, and future problems of the startling new forms in concrete architecture using thin shell, block, precast, prestressed, panels, and reinforced concrete.

Plus a section of photographs of dramatic, attractive concrete structures, proving the beauty of concrete and its acceptance by contemporary architects.

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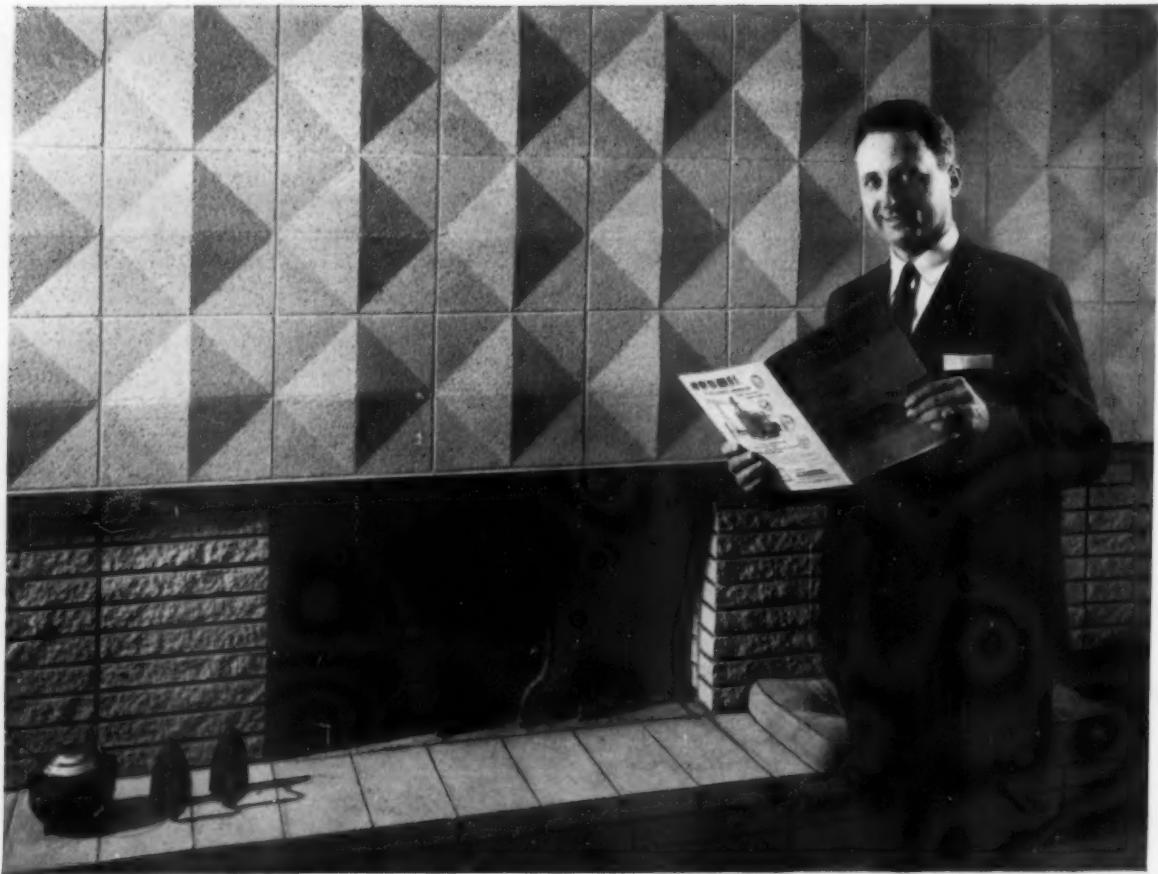
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*Mr. Adams stands by a handsome fireplace made from his masonry*

## **"Adding the newer types of concrete masonry has really paid off for us!"**

**Says ROD ADAMS, partner, Adams Concrete Products Co., Durham, N.C.**

**"Our business has increased 18% since we added the newer forms of concrete masonry. We carry 40 different styles and yearly volume is now over 4 million units. Acceptance is excellent for homes—and also for commercial buildings. Extra volume, plus higher mark-up has given us fast return on investment and a good profit picture."**

The thousands of new homes being built with the new forms of concrete masonry evidence the fast-growing acceptance of this modern material.

This acceptance has meant a bigger share of the housing market (plus a new source of revenue) for the progressive

block manufacturers that produce these many new forms.

The reason is simple. Countless new shapes, sizes, textures and colors—plus new patterns of laying—fit the buyer's idea of modern construction . . . and modern living.

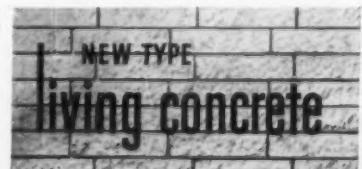
Also, the new units are suitable for both exteriors and interiors. They're ideal in any neighborhood, any style of architecture, contemporary or traditional.

Naturally, architects, builders and financing agencies have also shown keen interest in the new forms.

Shouldn't your company investigate the volume and profit potential of new-type living concrete?

**PORTLAND CEMENT ASSOCIATION**

*A national organization to improve and extend the uses of concrete*



# News

## New Lewiston RM Plant Begins

A \$200,000, five-truck ready mix and sand-gravel plant began operation in early April at Lewiston, Idaho. The new company, Conco, Inc., is headed by S. A. Thomas, partner in a local construction firm. Fifteen employees are working at the combination ready mix-sand and gravel operation.

## Fraley Heads New Abilene, Tex. Firm

J. B. Fraley is president of a new firm, Builders Ready Mix Concrete Co., that was recently established in Abilene, Tex. The firm is owned by Fraley and W. O. Hayter, Jr.

In addition to the owners the company has 14 employees. Two-way radios are presently being installed in the firm's nine trucks, with each mixer having 8-yard capacity.

## Rich Concrete To Build New Plant

Rich Concrete Co. has obtained a permit to build a \$125,000 ready mix plant near Farmers Branch, Tex., using a 5 acre site, with ten men to be employed.

## Quartzite Buys Ross RM Division

Quartzite Products Co. has purchased the Ready Mixed Concrete Div. of Ross Sand Co., Concordia, Kansas. The Ross company is owned by Ellis Ross, now operating a concrete pipe business in Topeka. Ross also had sold the sand business several months ago.

Quartzite, with a plant in Concordia, is a division of the Quartzite Stone Co., of Lincoln, Neb.

## TI Income Up

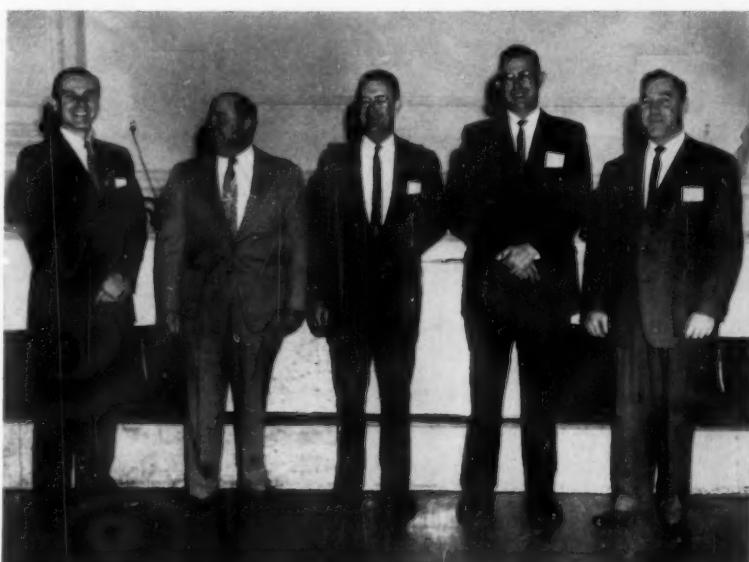
Texas Industries, Inc., Dallas, and its consolidated subsidiaries had net income of \$730,267 for the nine months ended February 29, compared with \$565,951 for the like period last year, President Ralph B. Rogers announced.

Earnings, after preferred stock dividends, amounted to 57 cents a share on 1,213,955 common shares outstanding. This compares with 44 cents on 1,211,955 shares last year.

The 1960 earnings figure includes a non-recurring profit of \$379,841, after federal income taxes, on the sale of an affiliated company, Southwestern Financial Corporation. This was equal to 31 cents a common share.

Net sales for nine months totaled \$11,643,962, as against \$12,208,178 for the period last year. The decline in sales was caused by the worst winter construction weather the company has experienced, combined with price softening in the housing field, Rogers said.

## Ready-Mixed Ass'n Organized in Kentucky



From left: Ken Tobin of NRMCA was a principal speaker at meeting; officers are William Horn, president; Lucien Congleton, secy-treas., Clyde Ruby, vice president; Tom Durkin, executive secretary of the Wisconsin RMCA.

The Kentucky Ready-Mixed Concrete Association was formed April 13 at Lexington, Ky., with firms from throughout the state being represented in the new organization. William Horn, of Frankfort, was elected the first president.

Other first officers of the association are Clyde Ruby, vice president, of Madisonville, and Lucien Congleton, of Lexington, secretary-treasurer.

Additional directors of the organization and their terms of office are as follows: Dave Bassett, Monticello, two years; George Cook, Covington, one year; Richard Hite, Russellville, three years; James McCracken, Louisville, one year; A. J. Verville, Maysville, three years; and Hiram Redmon, Ashland, two years.

Terms of the officers as directors are Horn, one year; Ruby, three years; and Congleton, two years.

The organizing convention was held at the Phoenix Hotel with Ken Tobin, executive secretary of the National Ready-Mixed Concrete Association, of Washington, D. C., as principal speaker. Also speaking to the group was Tom Durkin, executive secretary of the Wisconsin Ready-Mixed Concrete Ass'n.

# News

## Rubber Gasket Pipe Produced Automatically

According to Vice President A. K. Cloetingh, South Jersey Concrete Pipe Co. will soon be the first firm in the East to manufacture rubber gasket pipe automatically. The company, at Folsom, N.J., is adding 10,000 sq. ft. of production space.

A new machine that can produce 150,000 lbs. of pipe an hour, in 8' lengths with diameters ranging up to 3', will be used. Production was planned to begin in late May.

## Kitchener Plant Uses New Autoclave Method

A new method, said to save labor and fuel, is being used in the autoclave process of Hogg Builders Supply Ltd., Kitchener, Ont., Canada.

The new system replaces the boiler with hot oil heating coils which line the bottom of the autoclave and are covered with water. Oil is heated to about 550°F, bringing the water to a boil and forming the steam.

Savings come from elimination of the boiler, fuel savings since hot water is recycled, and the elimination of stationary engineers. The latter saving results from the hot oil being under only 15 lbs. pressure, therefore eliminating the need for supervisory engineers.

The Hogg autoclaves are 8'6" by 100'. Although the new process was invented in the U. S. by Struthers Wells Corp., Titusville, Pa., it has not yet been used in this country. J. Cook Concrete Block Co., Aldershot, Ont., reportedly plans to add the system sometime soon.

## Automatic Batching Added at Springfield Plant

New electronic batching equipment has been put in at the Concrete Company of Springfield (Mo.) plant, according to Tom Baird, vice president.

The automatic moisture compensating device is said to be the most advanced of its kind, and the only such unit in operation to date.

President at Concrete Company is Ralph Reed. The firm employs 75 people.

## Ga. CMA Elects Roy Barnes President



From left: Ralph Wiggins, J. W. Kingery, Roy Barnes, Harvey Fleming.

The Georgia Concrete Masonry Assoc. held its annual spring meeting in Atlanta, April 25, with more than three-fourths of the members in attendance. Roy C. Barnes, of Waycross, was elected president. Also elected were J. W. Kingery, Atlanta, as vice president and Ralph L. Wiggins, East Point, secretary-treasurer.

Harvey E. Fleming, executive director, is also chairman of the board.

Directors elected include Roy E. Maples, W. A. Mathis, George S. Clarke Jr., Wilson M. Camp, Harold L. Friedman and Alex M. Wainer.

Reports were made on the association's promotion and publicity, technical activities and industry education, and state office programs. A memorial resolution was read to the late John S. Baily, founder and proprietor of Concrete Mfg. Co., Atlanta.

## Lincoln Prestress Firm Expanding Plant

Nebraska Prestressed Concrete Co., Lincoln, is undergoing a \$100,000 expansion, according to sales manager John Heald. Some 20 extra men will be employed to help produce beams for several bridges under contract. Overall employment during the summer is expected to reach 200 at the five year old firm.

New facilities will include two 300' long beds, bringing the plant total to 9 beds. The firm is also constructing a \$60,000 100x40' office that will feature a precast solar screen. According to Heald, 1960 business should exceed \$1 million.

## New Wis. RM Plant

A new ready mix plant has begun operations near Green Bay, Wis., under the name of Arrow Redi-Mix Co. The firm is operated by Bernard F. DuChateau with Wilbert Tappa as plant manager. The firm is beginning with three trucks.

## Material Service's Hoy Named Genl. Dynamics VP

Patrick H. Hoy, president of Chicago's Material Service Div. of General Dynamics Corp., has been elected a General Dynamic's senior vice president. Hoy will continue as president of MS.

## Glazed Output Begins at New Utah Plant

Production has begun at a new \$110,000 plant of Glazed Concrete Products, Inc., in Ogden, Utah, with ten employed. The firm, a division of Utah Concrete Pipe Co., will produce glazed concrete block.

Production is supervised by George Olson, with Dale Harris the production manager.

Utah Concrete Pipe Co. operates plants in Ogden and Salt Lake City.

## Screen Design Contest Winners Chosen

The 8 best designs submitted in the first national Satel-Lite Screen Wall Design contest were recently selected by a jury at the Building Center in Los Angeles. The contest, sponsored by North Hollywood Concrete Tile Co., was open to architects, landscape architects, designers and decorators.

First prize of \$500 went to Charles W. Walton, designer with the architectural firm of Jones & Emmons. Other prizes ranged from \$300 to \$50.

A selection of the new screen wall units will be available to the block industry, on a franchise basis from NHCT, using the Satel-Lite name, which supplements the old View-Lite patterns.

## Texas Industries Buys Irving Concrete

Texas Industries, Inc., has announced the purchase of Irving Concrete Corp. from J. C. Brownwell of Lewisville, Texas. The consideration was not given.

Irving Concrete operates 12 ready mix concrete trucks and a batching

plant at Belt Line Road and Highway 183.

Ralph B. Rogers, president of Texas Industries, said operations of Irving Concrete will be merged with those of Circle Concrete Corp. of Dallas, another recent acquisition in the ready mix field.

The combined companies will comprise five batching plants and 53 ready mix trucks in Dallas County. They will be managed by Earl Bowden, formerly president of Circle Concrete.

Rogers said the acquisitions will add substantial markets for the company's heavyweight aggregates and provide an additional market for the company's cement plant now under construction at Midlothian, Texas.

Texas Industries also owns ready mix plants in Fort Worth, and in New Orleans, Shreveport and Alexandria, La.

## New RM Plant in Waynesville, Mo.

Howard Ready Mix Co., with headquarters in Sedalia, has opened a new ready mix plant some 7 miles west of Waynesville, Mo. Plant supervisor is Earl Williams. Howard also operates another plant in Ft. Leonard Wood.

## A-M Buys Site Near Muncie, Ind.

American-Marietta Co. has purchased an 8 acre site near Muncie, Ind., to be used for a plant site sometime in the future. No definite plans for the plant have been announced but it evidently will be for concrete pipe, employing 30.

## A Single T First in Miami Beach



Single T concrete construction has been used for the first time in an open air structure completed for Vic Potamkin Chevrolet Sales, Inc., Miami Beach, Fla.

Housing a used car lot, the all-concrete shed covers 6,268 square feet. It is made of 14 precast-prestressed lateral beams each 56 feet long and weighing 11 tons. Maule Industries, only manufacturer of single T's in Dade County, supplied the units.

Single T construction was used to eliminate need for intermediate columns. The shed, completed in eight weeks, is supported by 16 circular concrete columns around the periphery spaced at 20-foot intervals for automobile access.

T stems have been left exposed, creating a rib-like interior. Fluorescent light fixtures are attached to alternate stems.

# News

## Marietta Concrete Promotes Wells, Duncan

Marietta (Ohio) Concrete Div., of American-Marietta Co., has announced the promotion of J. Richard Wells and Clarence Duncan, both Marietta residents.

Wells has been named production manager of the Marietta and Baltimore precast concrete products department. Duncan has been appointed assistant manager of the block and silo plant.

## Concrete Ties Tried on West Coast

Almost at the same time as concrete ties underwent test in the South (see June issue) the Western Pacific railroad installed prestressed ties in a line near San Francisco.

These ties, similar to those made in Germany, were done by Ben C. Gerwick, Inc., in conjunction with WP personnel. Design and test data was obtained from the Association of American Railroads, as was done in the Georgia installation.

## New RM Plant in Marshalltown, Ia.

John Rose Co. is expanding into the ready mix business, with a new plant being built in Marshalltown, Iowa. The plant was expected to begin production in June, using two mixer trucks.

The firm will be known as John Rose Co., Ready-Mix Concrete.

## Norman Withey Joins Consulting Engineer Firm

Norman Withey has joined the staff of Carl C. Crane, Inc., consulting engineers in Madison, Wis., to

work largely on a special branch of the firm's consulting service, concrete technology and engineering.

His work will include concrete mix design and control testing for concrete and cement products manufacturers, and review of the concrete and masonry portions of specifications and plans.

## Tenn. Precast To Build Plant in Brownsville

Tennessee Precast Corp. plans to build a plant, employing 50, in Brownsville, Tenn. Production will be precast terrazzo and cast stone for flooring, wall panels, block, stair treads and risers and others.

## PC Shipments Down

Shipments of finished portland cement in March totaled 17.6 million barrels, a decrease over March, 1959 of 23%, according to the Bureau of Mines.

Shipments of high early strength cement totaled 1.05 million barrels.

## Norway To Hold Meet on Grout for Prestress

A "FIP-RILEM" symposium on injection grout for prestressed concrete will be held at Norges Tekniske Høgskole in Trondheim, Norway on January 5-7, 1961.

The program on the first day will discuss the general problems connected with the grouting of post-tensioned structures; composition of grout and methods; standard requirements for grouting.

The second day will report results of lab and field studies on such properties as fluidity, setting time, stability, shrinkage. The last day will discuss lab reports of studies in bond and other mechanical properties, and frost resistance. Exhibits and demonstrations will be held of grouting materials and equipment.

Papers intended for presentation should be sent to Prof. I. Lyse, N.T.H., Trondheim, Norway before August 15. For further information, write Prof. Lyse.

## Meetings

### August 1-3, 1960

Lightweight Concrete Block Manufacturer's Conference, Chalfonte-Haddon Hotel, Atlantic City, N. J.

### September 27-30, 1960

Annual convention, Prestressed Concrete Institute, Statler-Hilton Hotel, New York City.

### October 3-5, 1960

Semi-annual meeting, board of directors, NRMCA, Del Monte Lodge, Pebble Beach, Calif.

### December 5-6, 1960

Midwest Ready Mixed Concrete Assoc. Annual short course, Purdue Univ., Lafayette, Ind.

### ECSA Meets July 7

The Expanded Clay & Shale Assoc. will have their mid-year meeting at the Dearborn Inn, Dearborn, Mich., on July 7-8. Host for the meeting will be the local Light Weight Aggregate Corp.

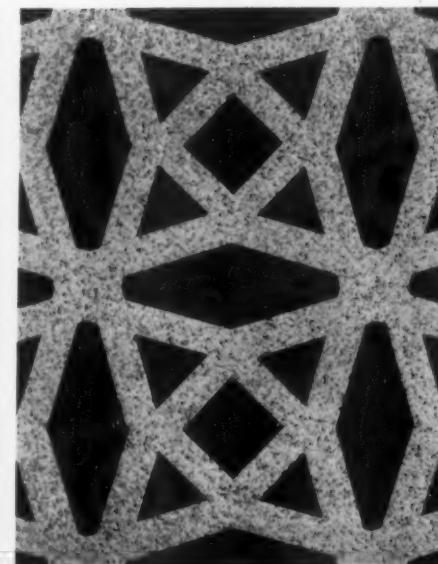
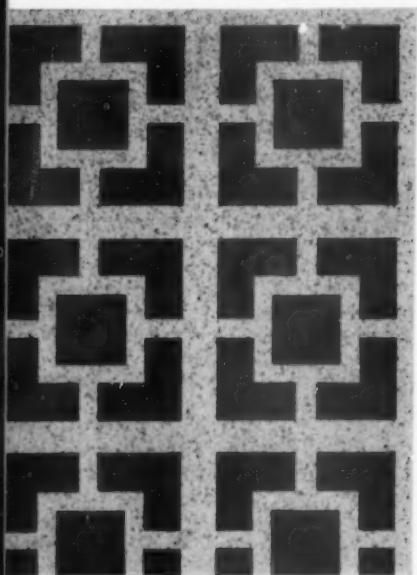
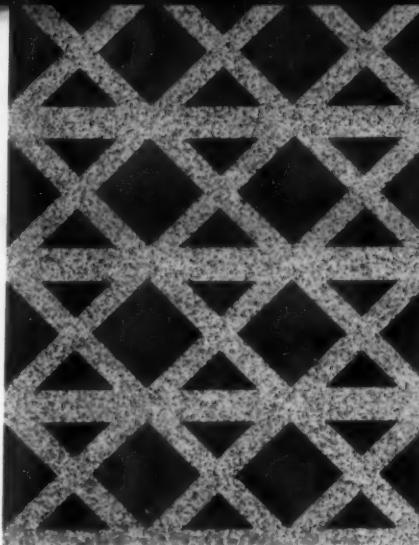
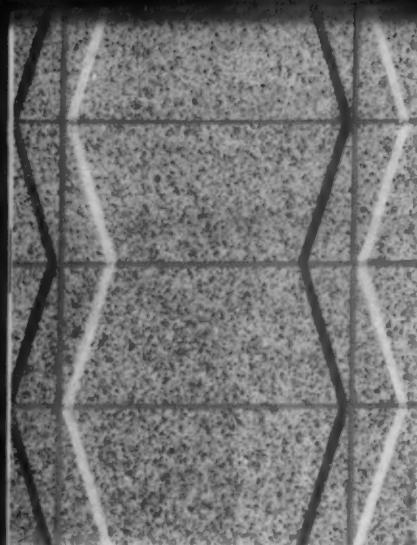
Executive secretary Ted Berger has announced that Illinois Brick Co. has joined the association as a producer-member, with Clyde Stewart added to the ECSA board of directors.

### Ontario RM Assoc. Meets Sept. 18-20

The annual meeting of the Ready Mixed Concrete Assoc. of Ontario will be held at Delawana Inn, at Honey Harbour on Georgian Bay, on Sept. 18-20, according to Robert L. Moran, general manager.

### Mrs. S. E. Morgan Dies

Mrs. Sarah E. Morgan, 52, co-owner of Morgan Concrete Works, St. Petersburg, Fla., died March 25 in a St. Petersburg Hospital.



*Columbia*

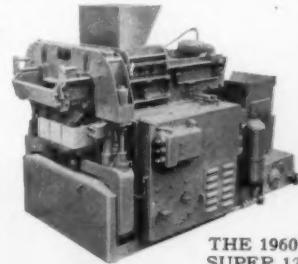
*Columbia* builds machinery and equipment to produce high quality precision-made concrete masonry units for today's fastest growing building materials market. Standard and decorative units that meet all local and national building codes and requirements... and at production costs low enough to allow a generous profit for the plant operator.



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THE 1960  
SUPER 12

COLUMBIA'S SUPER 12 CAN BE ADAPTED TO USE MOLDS FROM MANY OTHER BLOCK MACHINES

For more information use postcard facing page 40.

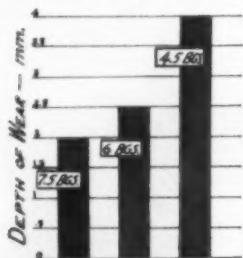
## news and notes from the field

### 7 Factors Affecting Life of Concrete Floors

Long-wearing concrete floors are easy to build if a few practical steps are observed in designing, placing and curing them. Naturally, the most important part of the floor is its wearing surface. The hardness or "wearability" of the surface is of special importance for such jobs as industrial floors, warehouses, loading platforms, etc.

Through years of on-the-job study and extensive research work, Alpha has found that the following 7 factors must be considered if floors are expected to endure heavy wear. *Please note that these factors are not short cuts and also you can't omit the importance of quality materials, good supervision and good workmanship.*

#### 1. The Cement Factor



EFFECT OF CEMENT FACTOR  
ON DEPTH OF WEAR  
(2" slump and 28-day curing)

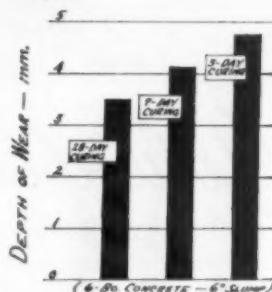
A 7.5-bag mix will wear 20% better than a 6-bag mix and 100% better than a 4.5-bag mix at the same slump and with the same 28 days moist curing.

#### 2. Slump of Concrete

By reducing the slump from 6" to 2", the wearability of floors made of 4.5-bag concrete will be increased by 15%.

Reprints of the helpful information presented on this page are available on request.

#### 3. Length of Moist Curing Time



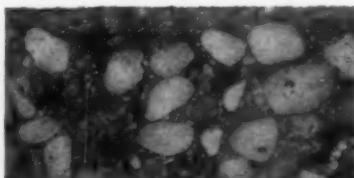
EFFECT OF MOIST CURING TIME  
ON DEPTH OF WEAR  
(6-bag concrete, 6" slump)

The higher the slump the more the concrete is affected by improper curing. The chart above shows how moist curing improves the wearability of 6" slump concrete.

#### 4. Compressive Strength

For all practical purposes, the wearability of concrete is directly proportional to its strength. Example: 6000 psi concrete wears over four times better than 1800 psi concrete.

#### 5. Finishing Concrete



Overtroweling will cause the finest particles and water to rise to the top, thus resulting in a low strength surface skin. The importance of troweling at the right time can be seen in the fact that the

surface skin of 0" to 4" slump concrete can show the same amount of wear. Water and fines brought to the surface through careless troweling of lower slump concrete reduces the surface strength until it is no better than higher (up to 4") slump concrete. The surface hardness of 4" slump concrete is 100% better than 10" slump concrete.

#### 6. The Type of Cement

In cases where concrete is subjected to wear at an early age, provision must be made for high-early concrete strength. This can be done by using hi-early cement or a higher cement factor where Type I cement is used. Such conditions vary too much for specific recommendations here, but Alpha's field engineers are always available to users of Alpha products to assist in determining the proper construction method for special conditions.

#### 7. Drying After Curing

If concrete is permitted to dry after proper curing, its surface skin strength is almost doubled. It is advisable, therefore, to allow at least one day of drying after moist curing before the floor is subjected to heavy wear.

Good sound aggregates are important, but it is the mortar binding the aggregates together that determines, for the most part, the wearability of the floor. There is no short cut to quality concrete and as has been proved time and again, the right way is the most economical in the long run.

**Note:** All data on this page are approximate and intended for general guidance and not specific rules in concrete floor design and construction.

**ALPHA**  
PORTLAND CEMENT COMPANY  
Alpha Building, Easton, Pa.

## Stevenson Elected Pres. of Concrete Products Co.

Fred W. Stevenson has been elected president of the Concrete Products Co., Charleston, S. C., succeeding George P. deSaussure, who's retiring.

Stevenson will also serve as company treasurer. D. R. Stevenson will be vice president and secretary of the concrete block company.

## New Block Plant at Plant City

Plant City (Fla.) Ready Mix Concrete Co. is building a new concrete block plant in that city, which they say will be one of the largest, most modern in the Tampa Bay area.

The expansion includes the moving of the concrete ready mix plant in South Plant City to the new location.

## Other ABP Officers

In last month's news concerning the election of officers at the Autoclave Building Products Association, only Pres. John Wheeler's name was given as of press time.

Other officers elected include Peter Smith of Edgar D. Otto & Son, Albuquerque, vice president; Ralph Cromis, Boice Builders Supply Co., Pontiac, Mich., re-elected secretary-treasurer. John Selden, of Toledo, continues as technical director.

Attendance at the meeting exceeded that of any previous meeting. The 1961 convention is scheduled for Chicago.

## New RM Plant in Bassett, Va.

A permanent portable plant was put up in Bassett, Va., by Doyle Ready Mixed Concrete Co., Inc. Despite the portable design of the plant, the installation will be permanent, according to Doyle's president, Wilbur S. Doyle.

The Doyle firm, with two other plants in East Martinsville, plans to use radio dispatched trucks. Plant capacity is 60 yards per hour.

brick and block. The slabs come in sizes to 15' long, with exposed, reflective finishes of quartz, granite or marble chips. National also is producing concrete planks in lengths to 32'. The firm in addition is now distributing Spectra-Glaze block.

## Low Silhouette Masonry Being Promoted

A promotion effort for low silhouette, or half-high, concrete masonry is being made in Minnesota, with direction by a St. Paul ad agency.

The product being promoted is lightweight aggregate blocks, 15-5/8" long, 7-5/8" wide and "1/2 of 7-5/8" high". Advertising for the program at a reported cost of \$1,000 per day was to begin in June. A booklet also has been mailed.

## National Cement Adds Precast Slabs to Line

Precast slabs are now being made by National Cement Products Co., Toledo, Ohio, in addition to their

## New Le Mars Plant

Elmer and Orville Nemmers have received a state charter for incorporation of a firm to be known as Builders Ready Mix Co., in Le Mars, Iowa.

## Lafarge Buys Anglo

As tentatively announced in last month's news, Lafarge Cement of North America has taken over Anglo-Canadian Cement of Vancouver, B. C.

At last report, only a few technicalities remained, with stock and preferred Anglo shares to be turned over to Lafarge as of May 20.

## Fischer's Display Like "Small House"



A display booth that actually was a small home was built by Fischer Lime & Cement Co. for a recent Home Show in Memphis, Tenn. Designed to show the beauty, patterns and colors of concrete masonry units, the display used Dri-Lite Blocks and Ranchero brick, plus a special indoor counter-top barbecue grille. This grille, called the Char-Grille, was awarded as a door prize.

# Quotes

Informal news concerning people, plants and products

Twin City Dunbrik Ltd., of Eastview, Ont., headed by L. Stein, has expanded their operation with the purchase of a new Lithibar hydraulic block machine, cuber and complete newly modernized offices, with the latter using block and brick in unique patterns and arrangements.

*We've heard this from J. Harrison Smith: the 55th prestressed concrete operation under Leap consultancy has opened. Smith is with Leap. Located at Powder Springs, Ga., with Atlanta offices, the new plant is "the first prestressing operation in the world to use the Dodd Extrusion Machine on a commercial basis", Mr. Smith notes. This machine, on which four men can produce as much as 3,000 lineal feet of prestressed Keystone Joists in a 8 hour day, is said to offer mass production at low cost. The plant, which should be in operation by now, is managed by J. Warren Thompson with John E. LaRowe as sales manager.*

A way to stop autoclave stretching has been found by Sparling Tank & Mfg. Co., in New Toronto, Ont. The problem was that the autoclaves at Day & Campbell (autoclaves 117' long) lengthened as much as three inches when autoclave temperature rose to 350°F. If both ends were fixed, the autoclaves would buckle in the middle. So Sparling has fixed only the loading ends, and designed what they call rocker saddle supports to facilitate movement of the autoclaves. It must work because Day & Campbell has ordered two similar autoclaves.

*Four new architectural screen units have been added to the Cunard-Lang line of block, in their Columbus, Ohio area. C-L now carries more than 200 sizes, kinds and shapes of block, in three aggregates. We should have told you, about this time last year, that they've celebrated their 50th anniversary.*

Florence Concrete Products Co., in Florence, S. C., has added prestressed to their line which up till now has been block only. Since starting prestress in 1958 (company began in 1955 with block) they've put up 200,000 sq. ft. of roof using their prestress product. Fred H. Cross is president there, and he says they have plans for some expansion. An open-face block is being sold for fences, breezeways, etc.

*Thomas C. Turner, vice president of Modern Masonry Materials Inc., in Atlanta, has announced that MMM holds a Brikcrete franchise for Atlanta, and is making Brikcrete, Dunbrik, Terracrete patio block, and Link Log Fireplaces, plus other colored specialty products. C. Errell Steele Jr., is general manager and Byrne B. Waters is office manager. The company began operations last February 12. To MMM, we say well Dunn.*

Richard Cowan, of Bishop Building Materials Inc., of the city of the same name in Calif., has put in a new Imperial block machine, #420. He's making half high and standard block sizes with pumice and scoria with the new Lithibar.

*This can't be much of a secret since the news was published in a Nashville paper. So we report that Franklin Concrete Co., of that city, is working on an extruded concrete roof which, according to partner Claiborne Kinnard, is "less than four months away from production." Another partner there is Howard Johnston. The firm has been having good luck with their solar screen and Holiday Hill products. The company, not long ago, moved from Franklin into Nashville. And for a real switch, they sometime ago bought an American-Marietta plant to get their Nashville site.*

## ACI Publishes Bibliography

The American Concrete Institute has published its Bibliography No. 2, "Evaluation of Strength Tests of Concrete." This new bibliography lists and annotates selected articles appearing in available technical publications issued from 1924 to 1958 and dealing specifically with compression tests of concrete, variations in tests results, and evaluation of tests.

The bibliography was compiled as part of the work of ACI Committee 214, Evaluation of Results of Strength Tests of Concrete. In announcing the bibliography, the committee noted that the value of statistical methods in evaluating test results has long been recognized, and that application of statistical methods to the control of concrete quality is long overdue.

This bibliography shows that certain "pioneers" in this field have made an effort to bring to the attention of the concrete industry the value of a realistic approach to concrete quality. Quality, as measured by strength and based on the pattern of test results evaluated by statistical methods, provides this realistic approach, the committee said.

## Iowa RM Assoc. Elects William McCarten

William C. McCarten, manager of the Fort Dodge (Iowa) Concrete Co., has been elected president of the Iowa Ready Mixed Concrete Assoc.

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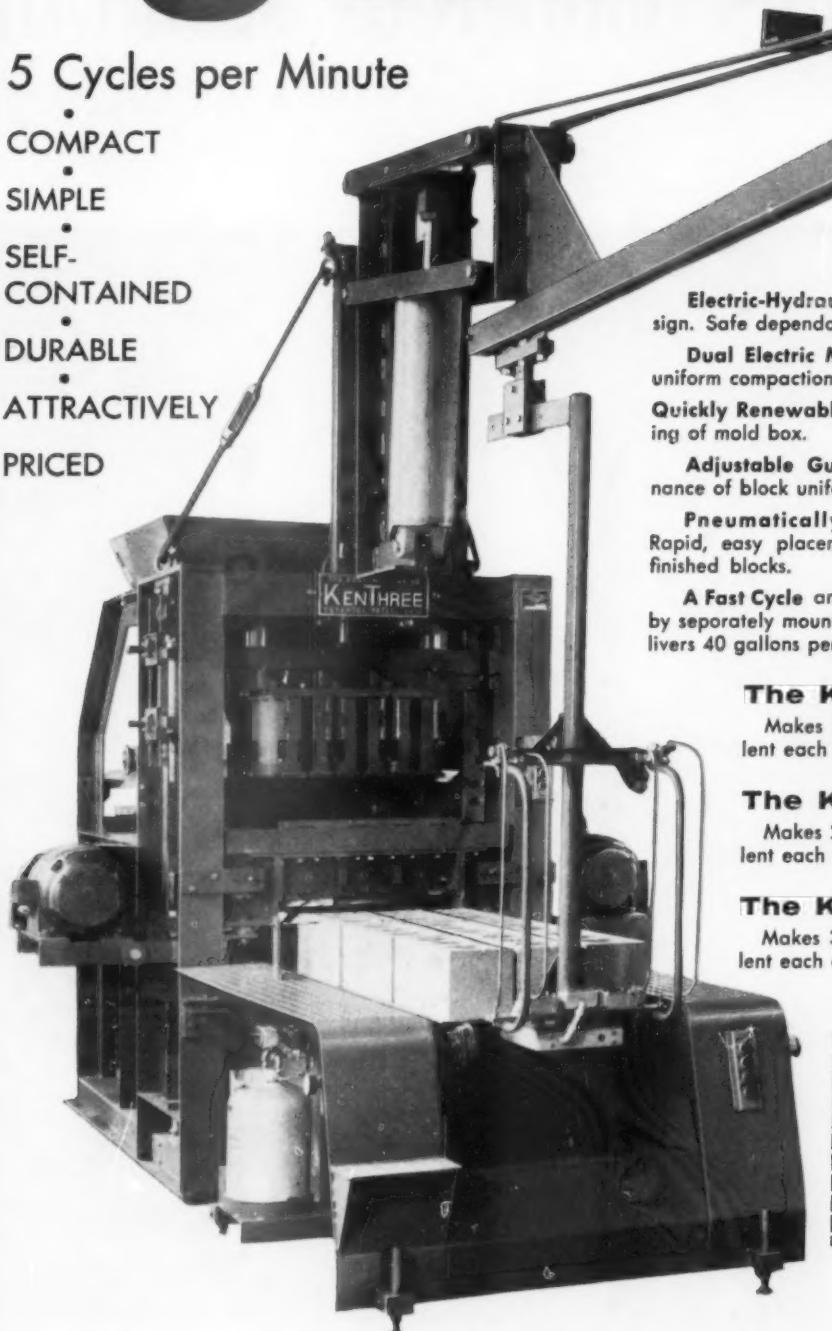
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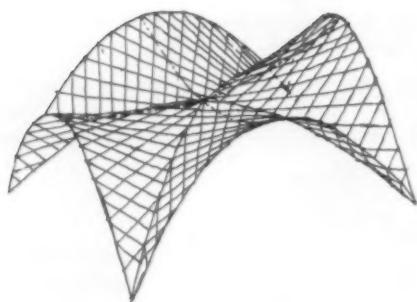
By \_\_\_\_\_

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## Concrete... and the



*Sears, Roebuck & Co. has been a leader in using modern architecture in their new buildings. The store here, in Tampa, Fla., uses a folded plate roof cantilevered over the surrounding walks, with the roof covering 163,715 sq. ft. Weed, Russell & Johnson were the architects.*

# Revolution in Architecture

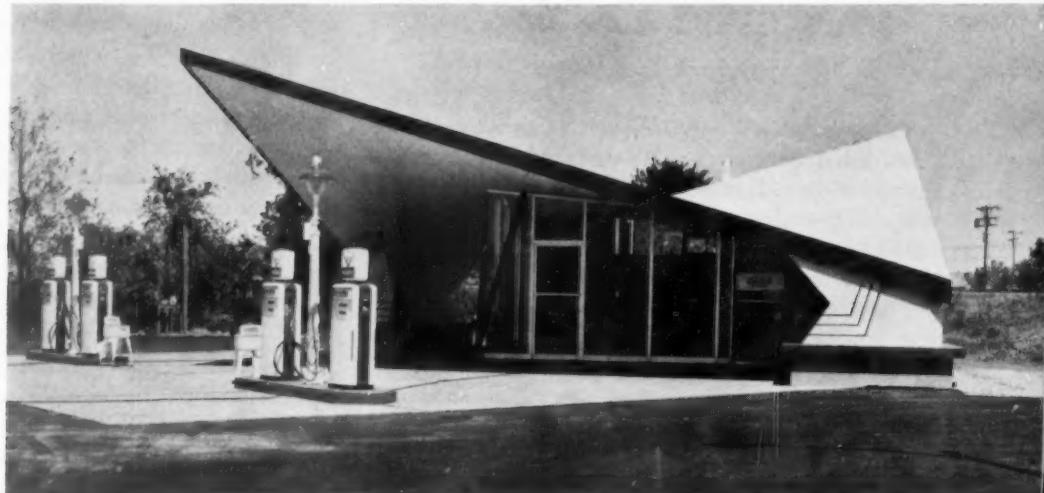
We're doing this month a thing seldom done in our 56 plus years of publishing. This issue consists almost entirely of a special section on the use of concrete and concrete products in modern architecture.

We do this for two important reasons. First, in the past few years a trend developed that has led to concrete becoming the established, preferred material to use in advanced architecture. This includes concrete in thin shell, precast, prestressed, reinforced, for decoration, for structure, for sculpture. Until recently we hadn't realized how large this trend had grown. By preparing this special section of text and photographs, we want to be sure that you, the concrete producer, understand this growth and its possibilities.

Our second reason is this: too often concrete is thought of as cheap, crude, coarse. A section of photographs in this issue disproves this. The pictures prove that you can be proud of your product, of its new stature with architects and engineers.

Because we feel it's as much our job to report patterns and trends as to report machines and methods, we've collected material to help you understand the development and growth, the current promotion and how you can help the promotion, of this revolution in architecture.

*Text continues on next page*



*This Haysville, Kansas gas station was built with a hyperbolic paraboloid roof of shell concrete, showing how widespread is this dramatic new form.*

We, perhaps like you, have been increasingly aware that more and more concrete is being used in modern architecture, used in dramatic new ways. Only, however, when you begin to put a lot of the material together, as we have done in this issue, do you become fully aware of the whole scope of this development or how large it has grown and how big it can get.

We found that you can't realize this growth until you have looked at the whole pattern of development in all its parts . . . realize, with a little surprise, that most of such development in this country has come in ten years with fastest growth in the last two or three years . . . and realize, more and more, that this trend is just now starting, that you've got a young construction revolution beginning, one that's still only used by a relative handful of architects and engineers.

To show how widespread is acceptance of the thin shell concrete roof, we quote an Alan Dunn cartoon from an issue of *Architectural Record*: "How does he ever expect to be an architect if he can't invent a new roof?" A quip in another architectural magazine says that hp no longer stands for horsepower, it now means hyperbolic paraboloid.

These two comments show, to some extent, how common thin shell roofs have become, at least in the architectural field. Although many new and dramatic things are being done with block, precast and pre-stressed, the major architectural excitement today is in the thin shell roof in its many strange forms.

Despite the fact that the theories for this type of construction were formulated over a hundred years ago, and the first such building erected almost thirty years ago, in this country all of the excitement dates back not much over ten years.

#### *Almost As A Primer*

To bring you, and ourselves, up to date, we've prepared this special section. It's designed almost as a primer, to introduce you to the history of this development, to show you the extent concrete is being used in modern architecture, and to give you a starting point on your further research and promotion. We have no intention in this section of trying to convert you into a practicing architect or engineer, but we do feel you need some overall knowledge of the many developments in concrete, particularly in thin shell.

To begin with the present, the new forms of concrete are everywhere, in all kinds of structures. You see this in churches, high fashion department stores, office and school buildings, and even gas stations and warehouses.

The trend shows in all parts of the country: a Denver department store, the St. Louis airport, Vassar College in the East, an Oklahoma Elk's club, a Sears store in Tampa.

By looking at the news section of any architectural magazine, you see the trend. In the May *Progressive Architecture* almost all of the buildings proposed were of concrete in some form, or a combination of forms.

Concrete, beyond argument, is suddenly the new, the fashionable material for designing new forms in architecture. Why did this happen, how it did it happen?

There are several underlying reasons for the growing use of concrete in its many forms. But, to concentrate for the time on thin shell forms, one major reason for the growth is a definite reaction by many architects against the flat, unadorned metal and glass building which only a few years ago was the main form of construction that was considered modern. The architects by stripping the building to bare glass walls on a metal frame had left nothing to design. The architectural form, so to speak, had gone as far as possible.

#### *Screens and Thin Shells*

As part of this reaction, two general schools of architecture have developed. One, perhaps the best publicized and most easily comprehended, is the use of ornate screen walls by Edward Stone in such buildings as the famous Indian embassy.

The other, a pattern more fully developed in Europe and Latin America, is the thin shell roof, free form building that offers an escape from the primarily rectangular form with flat roof.

And when you design free-form, compound curve buildings concrete is, in many ways, the material. Because concrete can be poured or cast into almost any shape, with both economy and strength as factors, it's almost the only building material suitable.

To understand the growth of thin shell construction, you need a knowledge of its history and development, which we'll supply in a brief form, highly condensed.

Thin shell construction is far more common, and older, in Europe and Latin America. One major reason is that these areas don't have our ample stocks of steel, timber and other materials.

Although the mathematical formulas for thin shell construction were done in the 1800's, it wasn't until the 1920's that the theories were actually used in a building. Credit for the first shell roof usually is



*Modern forms of concrete are being heavily publicized this summer through such buildings as this. Built for the Roman Olympics in Rome late this summer, this is the Sports Palazzetto, designed by Nervi.*

given to the engineers of Carl Zeiss, the famous German optical firm. These engineers studied and built a barrel-roofed thin shell structure in the twenties.

In the following years, before the war and after, thin shell design spread throughout Germany and to the rest of Europe and Latin America. Several architects became famous for their design of such structures: Pier Luigi Nervi of Italy, Eduardo Torroja of Spain, Felix Candela of Mexico, Le Corbusier of France.

The designs created are at times complex and compound, but primarily based on three simple forms: the cylindrical, or barrel shape; the spherical or dome; the conoid or hyperbolic paraboloid. Another common type is folded plate, with all these forms probably best understood by a look at some of the photos used in this issue.

Since domes are an ancient form in construction, and the barrel is easy to understand, the third form, hyperbolic paraboloid, is the most difficult to grasp.

The hyperbolic paraboloid, first, is almost always described by the example of a western saddle. It's a compound curved form that is, oddly enough, formed by a number of straight lines. This gives an obvious

advantage in form construction for concrete since the form boards are all straight pieces. The best way to understand the hyperbolic paraboloid is to look at the drawing of one, as shown. They can be cast in several ways, with the basic form repeated as often as is desired. (An h-p sketch is on page 14.)

The other two forms, either the dome or the barrel, are also often repeated on a roof.

To return now to the history, the development of thin shell in this country has lagged. In the early thirties a Chicago engineering firm, Roberts & Schaefer, obtained rights to the Zeiss patents. The first building put up by R&S was a small shell built at the 1932 Chicago exposition. Other projects followed, but development was slow until recently.

Aside from the difference in supply of steel and timber in the U. S. and Europe, one architectural writer believes the slow development of shell construction in this country came from the way we teach architects and engineers. Contrary to the pattern in Europe where many architects are also their own engineers we separate the two. And too often architects don't know enough engineering, engineers don't understand enough architecture.

Another reason for our late development was a misunderstanding of the engineering problems and economics of shells. Most people in this country thought that shells were hard to erect, and too costly.

World War II started to change these ideas, as it did so many others. We needed, at that time, many buildings such as airplane hangars that could be erected quickly, economically, with large free-span areas, and that were strong. Experience with shells showed that they had these qualities, with exceptional strength.

After the war, development moved much more quickly. Eero Saarinen designed the well-known MIT auditorium. Among others, the engineering firm of Amman & Whitney moved into the field. Many others now follow.

Now that it's been proved that thin shell buildings are economical, strong and not impossible to erect, one major problem remains. This problem is that not enough architects or engineers fully understand either design or erection of thin shell buildings.

And this leads us naturally to the promotion of shells, since almost all promotion to date has been aimed at this needed education, education to win acceptance for the advantages, uses and many forms of shell construction.

#### *Promotional Efforts*

Frankly, the best possible promotion for shell construction and the real reason for its present development is the use of this design form by such renowned architects as Nervi, Saarinen, Candela and the others.

This, though, isn't much help to you, the individual concrete producer who wants to help make sure the use of concrete both continues and grows.

For your promotion effort, in whatever form it may take, the first requirement is some simple understanding and knowledge of what you're trying to promote.

In checking to find what promotion is being done and who has information on shells, we found several groups working at this, groups that range from cement companies to industry associations.

For you, though, we feel the best single source undoubtedly is the Portland Cement Association.

PCA has been aware of this development for quite a while, and has been using a varied approach to both promotion and education. This includes their own publications, reprints from other sources and engineering data. Almost all of this, of course, is primarily aimed at the engineer, architect and contractor. Two motion pictures will be used; one, "New Shapes in Concrete", is already available and the other, "Shell Roof Construction" will be ready soon.

Advertising, committee work, cooperation with schools that have shell design courses, are all part of the PCA effort. The district engineers of PCA have been trained to supply advice and information in their areas.

The work of the district engineers has helped considerably in some areas. With the engineer working to either promote shell, or convert other jobs to shell, PCA has found that the first concrete shell building in an area leads to many others. As local architects find shells are within their power, they add such designs. In effect, it's a chain reaction. This has happened in at least two areas to date, in Seattle and Denver.

#### *Two Important Pushes*

Richard Knox, in charge of PCA public relations, believes the two biggest pushes to shell construction have come from an ASCE manual and from PCA's design schools, seminars and short courses.

In the first example, PCA cooperated with the ASCE to prepare a manual on shell roof design, a job that took better than two years. Alfred L. Parme, principal engineer of PCA's Advanced Engineering Group, was a leader in this work, with his paper "Shells of Double Curvature" receiving the coveted Moisseiff Award in the field of structural engineering. The award was presented for Parme's paper read at the annual ASCE meeting last October.

PCA is scheduling design short courses and schools to both teach thin shell construction and to add to the knowledge of architects and engineers. This continuing effort is bringing excellent results.

To repeat ourselves, if you want to learn about thin shells, the one best place to start is with PCA. We've been assured that the district engineers can supply you with ample material on request. There's a wide range of material available to you.

Another good source of information is ACI which has been publishing papers on the new designs in concrete. For just one example their January, 1959 issue of the *Journal of the American Concrete Institute* (No. 7, Vol. 30) has an excellent round-up article titled "Concrete Space Structures—Relation Between Form & Structural Design" by A. M. Haas.

For an excellent review of shell construction, one that we relied on for this section, the July, 1958 *Architectural Forum* published an article "The Rise of Shells", by Lawrence Lessing. For a one-section discussion of shells, this Lessing article is superb. The other architectural magazines have many articles on shells, from design to the construction methods.

Up until this point, in discussing the new use of concrete, we've talked almost entirely about thin shells. We did this because, first, they're a little difficult to understand and, second, this is the form being talked of most now in architecture.

But this certainly doesn't mean that the other forms of concrete are being overlooked. Block, particularly in the new screen or grille units, is being used widely. This comes partly from the heavy push given by Edward Stone's highly promoted and patented screen wall unit.

Prestressed, although relatively young, also is becoming well known. After its initial use in bridges and such structures, it's being used more and more for such buildings as gymnasiums, auditoriums, factories and office buildings. Prestress is even showing up in buildings such as houses and small offices.

It's interesting that Chicago's newest hotel, Executive House, uses a reinforced concrete frame under a metal skin.

Precast concrete, in many ways, is booming. Precast sun screens are being used as well as the more familiar block screens. Skidmore, Owings & Merrill, the famous engineering firm, used precast units on their new Banque Lambert in Brussels, and have adapted the same idea for use on a Chicago insurance building now being constructed.

This SOM use of precast is doubly interesting because this firm for years has built many of the glass and metal buildings erected in this country.

Growing interest is being shown in sculptured panels, particularly those by "Tino" Nivola. Over the past ten years Nivola has developed a new method of sand-casting panels, with these panels used to date on a Hartford Mutual insurance building, the huge Chicago exposition center, and other places. A story on his work on the Chicago job appeared in our October, 1959 issue.

Also, the slip forming method, the use of light-weight concrete, textured concrete, concrete with

*The May department store in Denver is fronted by this building with a 112 x 132' hyperbolic paraboloid roof supported at only four points. Architect: I. M. Pei & Assoc.*





*Architect Minoru Yamasaki used concrete in the building and landscape of McGregor Memorial Hall, Wayne University, Detroit.*

exposed aggregate, new block designs: all are growing rapidly.

A new European method that compacts concrete by vertical vibration is coming into use, with the process called Schokbeton. Concrete of this type has already been used in New York.

With design in concrete now wide open to any workable ideas, the growth will come quickly. There are, however, problems as always seems to be true.

One problem may be that such designs are passing fads or fancies. Some people feel this is true of the screen units being used so commonly in the West and South. Architects are a little worried about indiscriminate use of shells by architects or engineers who don't have a full enough understanding of both

*Several forms of concrete were used in this Oklahoma City drive in bank, designed by Wright & Selby, with an undulating roof of concrete.*





*The dramatic St. Louis municipal airport used concrete in its intersecting barrel roof.*



design and engineering principles. Many architects and architectural writers seem to feel that American architects don't yet fully comprehend shell design and handle it poorly in some cases.

Your problems, simplified and omitting many things, come under the heading of quality. Without trying to make this into a learned paper on concrete techniques, whenever we asked what a concrete suppliers main problem would be we were told quality. Quality in material supplied, quality in handling, quality in placement.

Admittedly, supplying decorative units that sometimes are works of art is more difficult and demanding than supplying backup block or pouring a driveway. Supplying and placing the concrete that goes into a roof that may be a block long but only 3" or 5" thick demands quality.

We have been told, and believe, that the market for concrete will certainly grow. But as these new forms in construction develop, the supplying will become more complex than before, the standards will be higher.

# These Pictures . . .

... in sculpture . . .

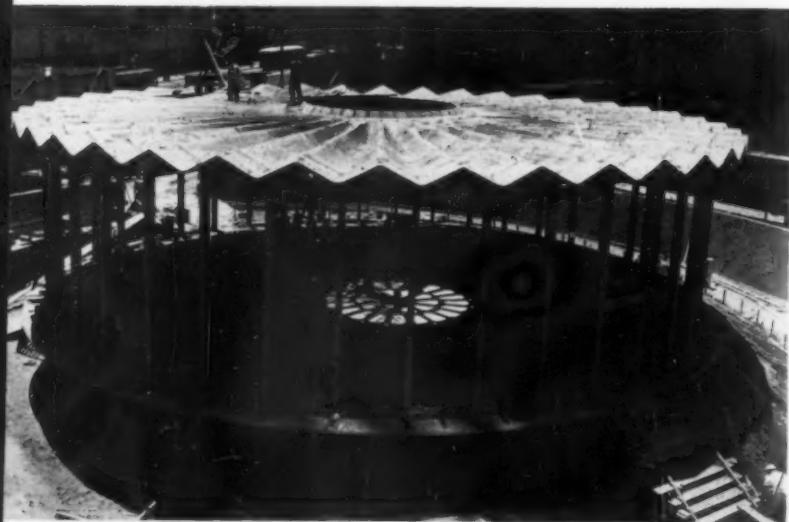


*This concrete sculpture, at the San Jose Calif., plant of IBM, represents, abstractly, a family of three.*



*Sculptured panels by Illinois restaurant and*

... in startling roofs . . .



*This bank in San Francisco attracts attention both because of circular shape and unusual roof.*



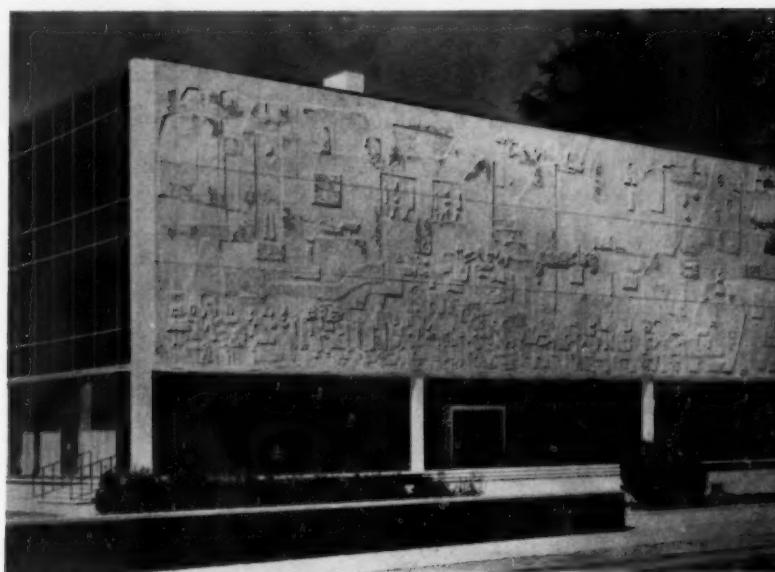
*A famous concrete dome at MIT, designed by Eero*

Prove our point that concrete is being used in the majority of dramatic, beautiful modern buildings

...in sculptured panels...



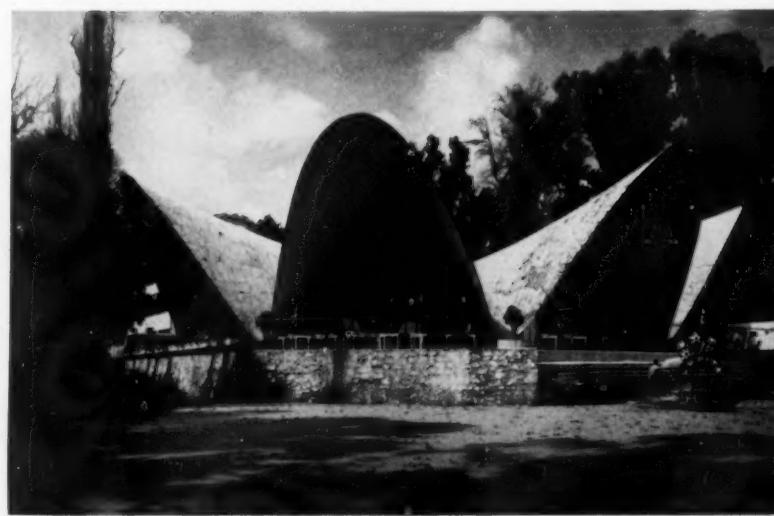
*Abbott Pattison on an bowling alley.*



*The best known panel sculpture is by Nivola, with this example on the Mutual Insurance of Hartford building. Building won an AIA award.*

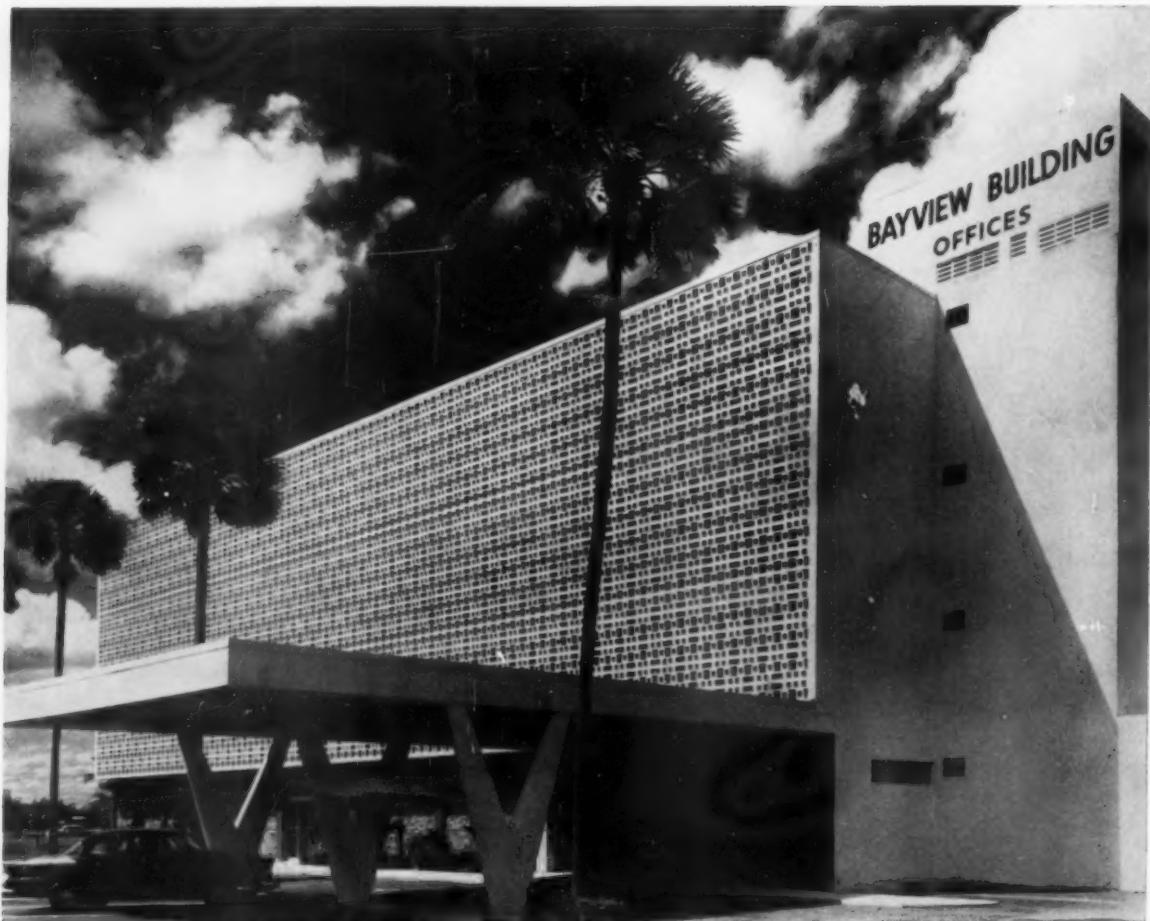


*is Kresge Auditorium,  
Saarinen.*



*Concrete shells create strange patterns in this Kochilmilco, Mexico restaurant, designed by Candela.*

... in attractive screen walls ...



*A curtain wall of grille block forms a lacelike facade for the Bayview office building, Ft. Lauderdale, Fla.*

... even umbrellas ...

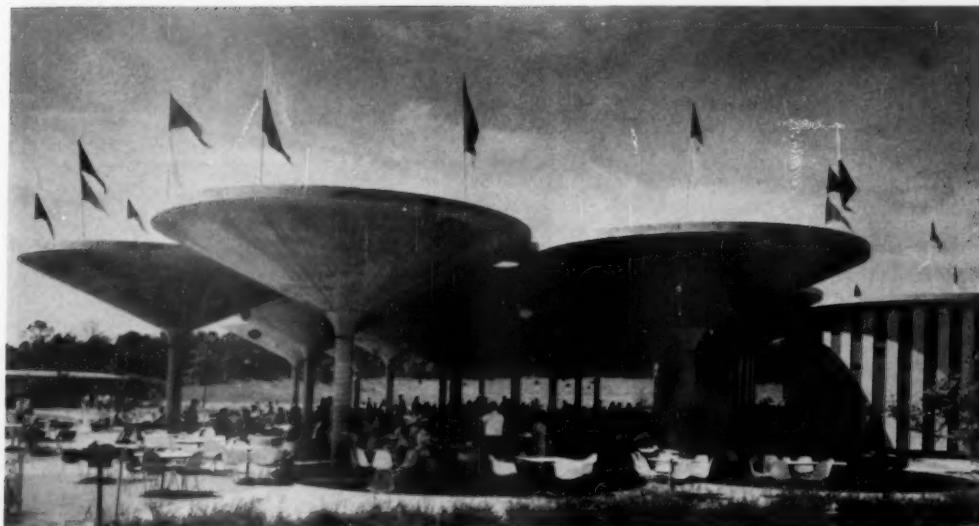
*Concrete umbrellas cover this Victor Lundy building; it's the Warm Mineral Springs Inn, near Venice, Florida.*





*This house uses screen units, 4" units in the low wall, and pebble surface concrete walks with design carried also to interior.*

*More umbrellas, this time covering a dining pavilion at Pine Mountain, Ga.*

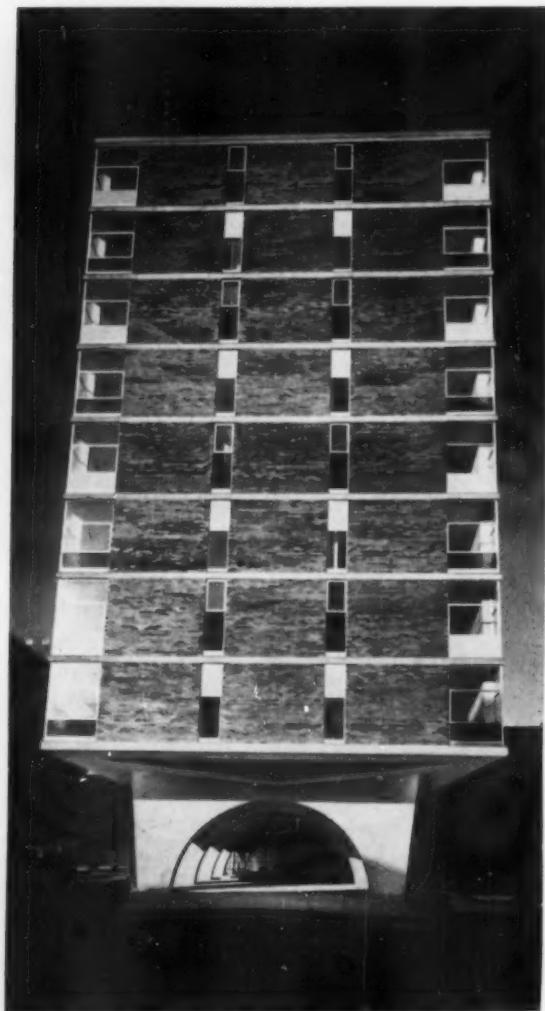


...reinforced...



*Chicago's first new hotel in many years, Executive House, uses reinforced concrete under metal exterior. It's one of the tallest R/C buildings.*

...in unusual forms...



*A reinforced concrete base supports the Neville House Apartments in Pittsburgh. Architect: Tasso Katselas*

...or inside...



*Concrete block makes attractive interiors as shown when used in this unusual fireplace.*

...or precast...



*Universal Atlas Div. of U. S. Steel used precast reinforced concrete panels on this building, in Universal, Pa.*

Worldwide attention is being received by the startling new capital of Brazil, Brasilia, which is almost entirely of concrete and well publicized. Here's Oscar Niemeyer's design for Alvorada Palace, the presidential residence. Another view is pictured on the cover. Note the circular chapel at the left.



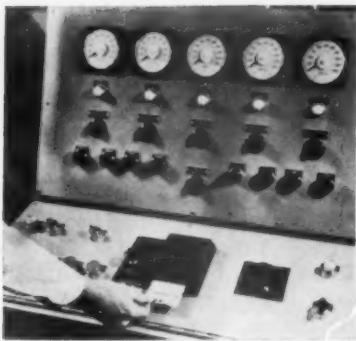
**Photo Credits:**

Cover, 23, 28—Brasilia, Xochimilco restaurant photos from Pan-American Union.  
Page 28—Roman Olympics stadium, from Italian State Tourist Office.  
Page 23—Kresge Auditorium, from Massachusetts Institute of Technology.  
Page 26—Executive House, from Executive House; Neville Apartments, from Concrete Reinforcing Steel Institute.

Special credit goes to the Portland Cement Association for photos from their files, including the Sears Store, Wayne University, St. Louis airport and many others.

What's New in

# EQUIPMENT and MATERIALS



## Punch Card Batch System

The Rex punch batch system has been extended and refined, with vinyl cards now used that can be pre-punched with mix formulas. The punching can be done by a hand puncher or faster by a special machine. Along with the automatic system is a set of manual controls that can be used when desired.

When the card is inserted in the console receptacle, the card is "read" instantly and batching begins. The system reportedly was designed specifically for ready mix, not adapted from existing office control systems; for permanent and portable plants.

Chain Belt Co., Milwaukee 1, Wis.

*Enter S28 on Inquiry Card*

## New Voidcrete Catalog

A new catalog of the Elgood line of reusable inflatable void forms has been published. The new information includes load tables on the Voidcrete prestressed hollow core floor and roof system, and the forming system for perimeter heating ducts and slab on grade construction. Catalog 602.

Elgood Concrete Services Corp., 378 Ten Eyck St., Brooklyn, N. Y.

*Enter S29 on Inquiry Card*

## New Car Shaker

A new car shaker, completely safe for one-man operation, is now being produced. It can be mounted anywhere along the length of the car by means of jib crane or fork lift. There are no chains or rods to tighten, no need for the operator to get in, on or under the car.

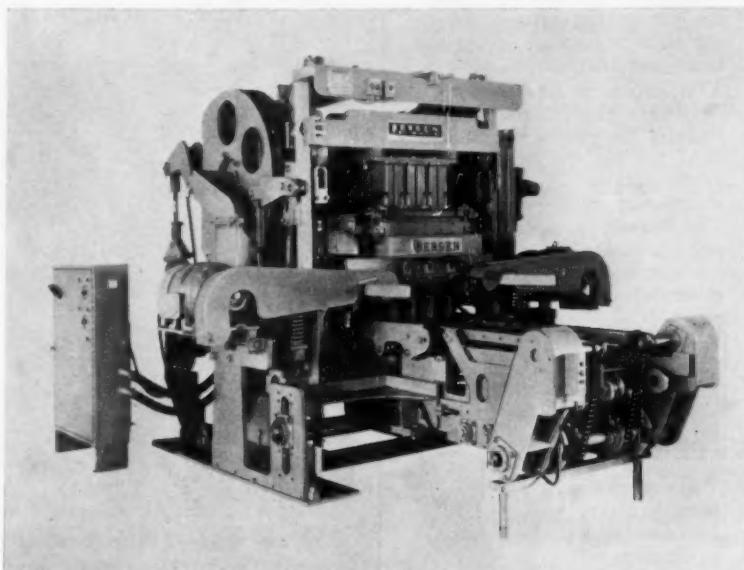
The rotary vibrator car shaker produces 900 vibrations per minute, operating from a 220 or 440 volt, 3-phase, 60 cycle AC supply.

Syntron Co., 324 Lexington Ave., Homer City, Pa.

*Enter S30 on Inquiry Card*



## New Bergen 12" High Tri-Matic



Bergen has announced addition of a number of important new features to its Tri-Matic high production block machine, with the features designed to simplify operation and maintenance. The new 12" high machine makes a full range of block sizes up to and including 12" high. The Tri-Matic, weighing some 16 tons, can produce at a rate exceeding 1,000 8" high quality equivalents per hour, Bergen says, without undue strain on the machine.

Bergen Machine & Tool Co., Inc., Nutley, N. J.

*Enter S31 on Inquiry Card*

## COMMENT

from the

### BUTLER ENGINEER

... For ADULT Road-builders, Ready Mixed and Concrete Products Producers ONLY ...

Confidence is a prime buying motive in everything from suspenders to a plant to produce concrete. Whether it's a road-builder's set-up, a ready mix or a concrete products plant, you want assurance you're not going to get caught with your plants down.

After 3 years of research, cussin' and discussion, the 7 major concrete plant manufacturers, working as cooperatively as upper and lower teeth with the National Ready Mixed Concrete Association, have developed strict standards for bins, batchers, cement silos, conveyors — nearly every component for a concrete plant. Important are definitions of manual, semi-automatic and fully automatic single batchers; of manual, semi-automatic and fully automatic batching systems which incorporate cement, water and aggregate batchers.

This group is known as the Concrete Plant Manufacturers Bureau. It's part of the N.R.M.C.A. So, the Standards are as authoritative as St. Peter's thumbs-up or thumbs-down. The Bureau has developed Rating Plates for equipment made by its members. Here's an example:



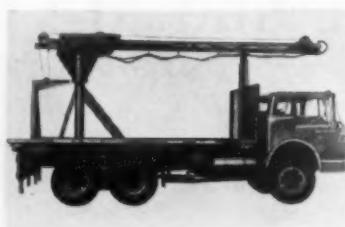
This gives you a firm, positive basis for confidence in the equipment.

Now — add Butler Trademark ...  
... and you have Reliability as firm as Mr. Gibraltar's Rock.

*The Butler Engineer*

BUTLER BIN COMPANY  
WAUKESHA, WISCONSIN

## Equipment and Materials ...



### New Hawk Loader

Engineering features said to give faster, smoother, loading-unloading of concrete block are incorporated in the new Hawk loader-unloader. The Hawk is the only machine that uses a hydraulically powered worm gear driven winch to give positive control throughout the entire operating cycle. It also features the hydraulically powered retractable boom that allows easy load placement; a spring loaded boom retaining rest that eliminates sway and bounce during travel; full-circle boom rotation; a new unload-

ing depth to 15' below grade; and longer reach.

The new Hawk unit fits all truck chassis from 17'6" to 24'.

Curtiss-Wright Corp., South Bend Div., South Bend, Ind.

Enter S32 on Inquiry Card

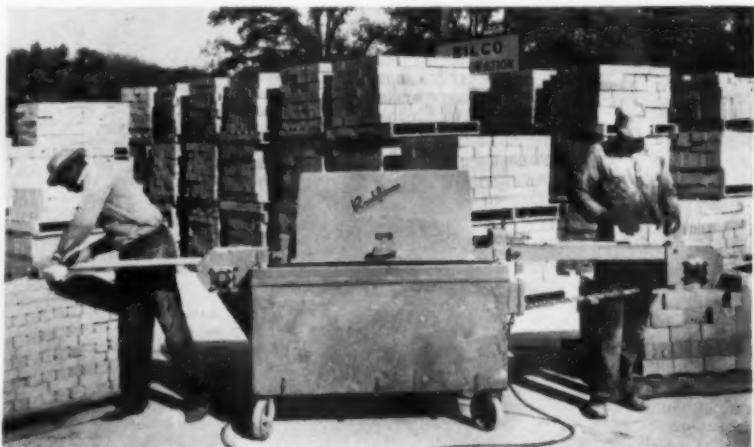
### Roto-Guard Literature

New literature available reports the acceptance for listing by Underwriters' Laboratories, Inc., of the Roto-Guard, a positive motion indicator safety mechanism made by Bin-Dicator. Roto-Guard basically is a unit that converts rotary motion into an electric signal that can be used to operate an alarm system or control switches. Bulletin RG-21.

The Bin-Dicator Co., 13946 Kercheval Ave., Detroit 15, Mich.

Enter S33 on Inquiry Card

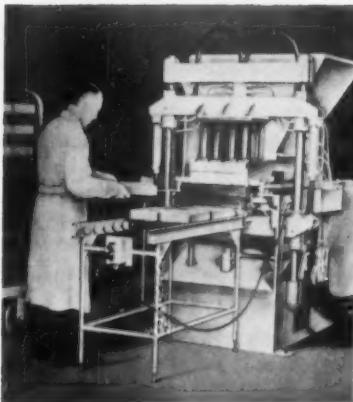
### Rock Facing of Block by New Machine



A new machine for rock-facing concrete brick is being made by the Rockfacer Co. The machine chips a fancy textured face along one edge of a plain concrete brick.

The machine has a successful history in the clay brick industry, and has now been adapted for concrete products. Two men operate the machine, one feeding and one removing, with a capacity of 2000 brick per hour. The machine can be moved to different areas in the yard. The company will rockface samples of your brick if you ship an assortment of your products to them; literature is also available.

Rockfacer Co., 503 Hickory Tree Road, Mesquite, Tex.



### Amerok Machine

A new Amerok machine is said to be 50% faster than the previous model and designed for one-man operation. The fully automatic machine has a production rate of from four to six pallets per minute, and can make a full line of wall units in three lengths, 16, 12 and 8"; in two thicknesses, 8 and 4"; and in two heights,  $2\frac{1}{4}$  and  $3\frac{5}{8}$ ". It will also make patio stone up to 16x16".

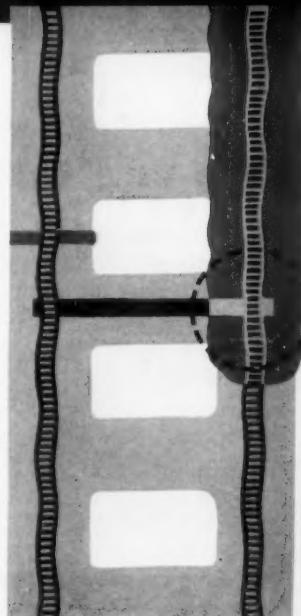
Bricrete Assoc., Inc., 341 W. 25th St., Holland, Mich.

*Enter S35 on Inquiry Card*

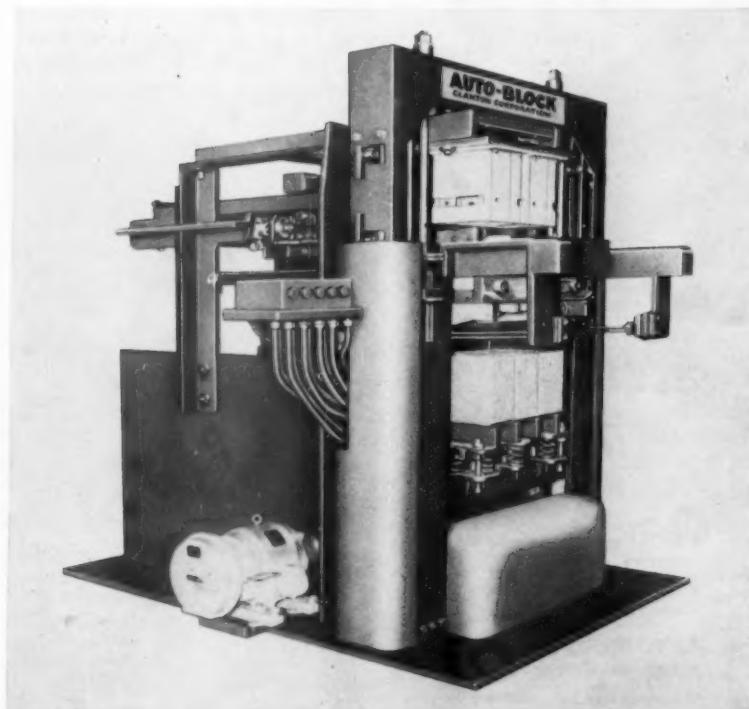
19% MORE STEEL  
in the MORTAR  
with

**WAL-LOK**

HORIZONTAL MORTAR  
JOINT REINFORCING



### New Auto-Block III Machine



A new block machine, recently introduced, is reportedly designed to operate in excess of 12 cycles per minute and to produce more than 2100 blocks per hour. Called the Auto-Block III, the new machine will accommodate existing mold boxes and permits height and mold changes within 15 minutes. A self-sealing feed drawer eliminates waste and clean-up time; Speed-O-Matic pallet feeder provides efficient operation. The machine makes block in any type unit: 4", 6", 8", 12".

Three other models are available, from 2 block at 8 cycles per minute, to 3 block at from 8 to 20 cycles per minute.

Clanton Corp., 5437 Laurel Canyon Blvd., North Hollywood, Calif.

*Enter S36 on Inquiry Card*

Other reinforcing may be heavier but, Grade for Grade and dollar for dollar, WAL-LOK puts more steel IN THE MORTAR where it counts — 19.2% more than competitive products. SUPERSTANDARD Grade has 8 ga. Siderods rather than the 9 ga. used by others and it's the Siderods that end up in the mortar. Ladder type construction means no wasted steel to get in the way of insulation, pipe or conduit in the walls • No extra freight on steel that serves no useful purpose.

PLUS, these no extra cost features—WAL-LOK is Double Deformed for maximum bondage • WAL-LOK's galvanized Crossrods project for additional bond • Crossrods serve as bolsters or bar chairs to hold WAL-LOK up for complete embedment in the mortar.

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NAME OF DISTRIBUTOR NEAREST YOU.



**WAL-LOK**

DIV. of LENAWEE PEERLESS, INC.

1322 E. MICHIGAN • ADRIAN, MICH.

## MB Opens Three Branches in South

The Master Builders Co., Cleveland, has announced opening of branch offices in Birmingham, Ala., and in Tampa, Fla. The Birmingham branch manager will be Paul M. Whatley, and Tampa will be headed by Jack S. Peters.

MB also announced that Andrew T. Fertal has been named manager of the Pittsburgh, Pa., branch office.

Another new branch office, in Atlanta, Ga., has been opened with H. Jack Nunn as branch office manager.

## Lambrecht Elected VP by Automatic Spring

Robert G. Lambrecht, general manager, has been elected a vice president of Automatic Spring Coiling Co., Chicago.

## Alpha Promotes Tomlinson

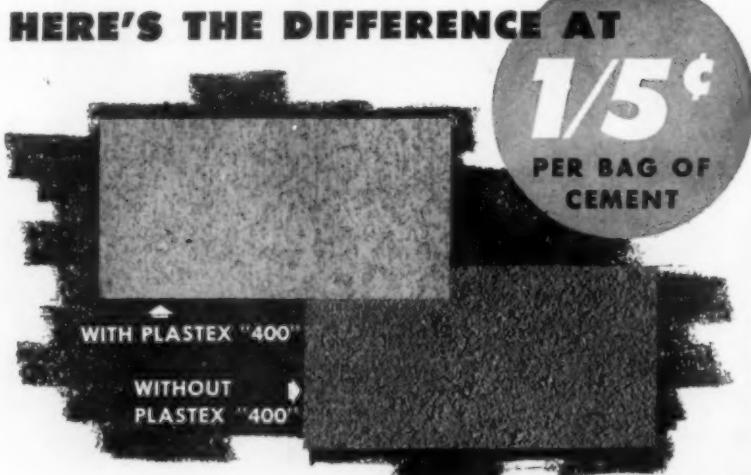
Robert W. Tomlinson has been promoted to senior buyer of Alpha Portland Cement, Easton, Pa. He replaces James I. Maguire, who was recently appointed director of management services. Tomlinson is replaced as a buyer by Renton B. Bethman.

## FMC Names Metzger

Donald A. Metzger has been appointed to the position of general sales manager for the Florida division of Food Machinery & Chemical Corp.

## Prestressed Concrete Used in Conveyor Design

The development of a system that uses prestressed concrete channels as the conveyor support has been announced by the Frank J. Madison Co., San Francisco. In the design, on which patents are pending, the U-



## New and Improved *Plastex "400"* at the lowest price on the market

### QUALITY-ECONOMY-GUARANTEE

The three important facts about Edick Laboratories' new Plastex "400".

**QUALITY:** This special formula (not a detergent) will give you a sharper cornered—lighter colored—smoother surfaced, better textured block—that is both denser and stronger!

**ECONOMY:** ONE tablespoon of dry, powdered Plastex "400" gives you better dispersing, wetting, densifying and plasticizing! Easier stripping will double the life of your mold box liners! The cost of Plastex "400" is but a fraction of the savings achieved through reduced culs and seconds!

**GUARANTEE:** Your money back—if Plastex "400" does not make a stronger block and provide the economy and quality you expect—dollar for dollar and pound for pound!

- 20% lighter color—better texture.
- Greater plasticity—reduced cracking.
- Stronger, denser block.
- Reduced moisture absorption.
- Simple to use—add dry to mix.
- Hydrates all your cement.

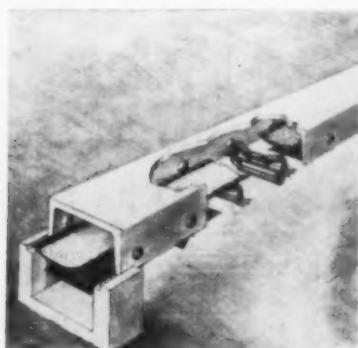
### PRICES F.O.B. MILWAUKEE

1 drum.....	15 1/2c per lb.
2 drums.....	14 1/2c per lb.
5 drums.....	13c per lb.
10 drums.....	12 1/2c per lb.

MANUFACTURED AND DISTRIBUTED BY



2358 S. Burrell Street, Milwaukee 7, Wisconsin



shaped beams are inverted so as to also serve as a protective cover for the belt, drive, idlers and material being handled.

Low initial cost is given as the chief advantage of prestressed construction. Inserts for idler attachment are integrally cast in the channels, eliminating the need for steel hangars.

Supporting piers and changeovers may be precast or cast in place, and no steel structural are required. Studies at the first installation reportedly showed a 40% saving over conventional steel construction.

The Madison company's address is 607 Market St., San Francisco 5, Calif.

## Bismarck, N.D. RM Firm Sold to New Corporation

Atlas Ready Mix Concrete Co., of Bismarck, N.D., has been sold to a new corporation, Atlas, Inc., headed by J. Ken Shaffer and H. C. Erling.

## Material Service Sets Up Architectural Fellowship

The Material Service Foundation has established a \$2500 annual fellowship for the purpose of furthering research in the utilization of concrete and masonry materials. The fellowship is open to graduates of all accredited schools of architecture and engineering in the U.S., with the cash award to be used by the recipient toward defraying the expense of a year of graduate study in America or abroad.

The fellowship will be administered by the Chicago Chapter of the American Institute of Architects, who will select the candidate who appears to possess the greatest promise and to be best fitted to profit by the benefits of the fellowship.

## T. L. Smith Forms International Div.

T. L. Smith Co., Milwaukee, has announced the formation of a new International Div. to handle overseas marketing of Smith truck mixers, turbine mixers and other equipment.

Manager of the new division is Charles M. O'Donoghue, who has served the past seven years as export manager for T. L. Smith in New York City.

## Sports Arena Uses Cast-In-Place Concrete



Cast-in-place concrete treads and risers were used for the installation of 12,000 permanent seats, arranged in 28 rows, in the huge new Los Angeles Memorial Sports Arena, dedicated by Vice President Nixon.

Constructed at a cost of \$6,000,000, the blue and white elliptical shaped building was designed by architect Welton Becket and Associates and was built by the L. E. Dixon Co. of San Gabriel.

Maximum seating of 22,400 can be provided for conventions; 19,062 for boxing; 18,174 for basketball and 16,004 for ice hockey.

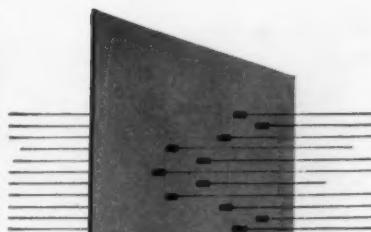
The Arena level access includes

all concrete stairways, ramps and two special 48 inch wide moving stairways, one at each end. These run down when patrons are entering and up when they are leaving.

To provide an unobstructed view within the 315 foot by 430 foot structure, the contractor used the largest building trusses ever utilized in this country, 315 feet long.

There are 8 transverse trusses in all, spaced on 50 foot centers, with 4 of the trusses spanning the 315 foot width.

The entire structure, big enough to house a 7 story building, is of fire-proof concrete.



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FOR PRESTRESSING

Cost less  
per  
pull!

Good tools are good business.  
In prestressing, good tools are  
vital business!

A prestresser deals with many variables in strain, weather, technique. Whatever the conditions, the hardened tool steel Supreme Brand Strand Chucks do the job of holding wire strand best—for a longer period of time—with greater safety—and with less labor per application. All in all, Supreme costs you less per pull. Write for catalog.

Supreme Products Corporation,  
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A Division of A-S-R Products Corp.



Strand Chucks—for anchoring strand



Supreme Brand  
Splice Chucks—for  
joining strand of  
same or different  
diameters

## PCI Convention Program Completed

Program plans for the forthcoming 6th Annual Convention of the Prestressed Concrete Institute, September 27 through 30, 1960, at the Statler-Hilton Hotel in New York City, have been completed, it was announced by Randall M. Dubois, president.

Utilizing the theme: "Prestressed Concrete, Key to Creative Architecture and Imaginative Engineering", the convention will be primarily a

three-day workshop designed to present new techniques and methods in this over \$300 million industry.

The convention is open to all members of the Institute, architects, engineers, manufacturers of material and equipment, and students. The program will include general sessions of interest to all attending plus special sessions directed primarily to producers and engineers.

This 6th Annual Convention is under the co-chairmanship of Charles B. Kiesel, vice president, Raymond

International, Inc. and Edward Schechter, president, Stressteel Corporation.

Other committed chairmen responsible for the convention are: General Program, Charles C. Zollman, partner, Schupak & Zollman; Technical Sessions, Armand H. Gustafson, Portland Cement Association; Producers Sessions, Innis O'Rourke, Pre-crete, Inc.; Speakers Coordinator, Noel W. Willis, Bridge Engineer, City of Philadelphia; Exhibitors Committee, A. L. Patterson, John A. Roebling's Sons, Corp. and A. F. Distasio, Intercontinental Equipment Corp.; and Entertainment Committee, Lewis E. Weeks, Flexico Products, Inc.

The opening night of the convention, Sept. 27, will feature a reception and get-together for members and guests in the exhibit area of the Statler-Hilton. The Annual Banquet will be held Thursday, Sept. 29 in the Grand Ballroom.

Registration for the convention is \$35.00 which includes reception and all sessions except two luncheon sessions. Wednesday and Thursday luncheon meetings are \$6.50 each. Combination package of registration plus luncheon sessions is available at \$42.50. Full details can be obtained by writing: The Prestressed Concrete Institute, 205 West Wacker Drive, Chicago 6, Ill.

## Correction

In our April issue, we mixed up two similar sounding cities in different states. Our story announced the opening of a new G & F Ready Mix Concrete Co. plant at Janesville, Wis. This should have read Zanesville, Ohio.

G & F President is Walter Fairchild, with the plant on the property of the Zanesville Gravel Co.

## Nogales Concrete Sold

Nogales (Ariz.) Concrete Materials Co. has been sold to John McChesney, of Phoenix, by the company's founder, E. M. Jeffcott. McChesney has announced plans to expand the plants by addition of a batching plant and transit mix trucks, in addition to present block and other products made.

**Men who KNOW say**  
*"Put the STRESS on*  
**AUTOMATIC"**

**STIRRUPS and LEVELING LOOPS**

Designed for dependability and convenience in the manufacture of prestressed concrete cored slabs.

**CHAIRS, HANGERS, STIRRUPS**

Carefully shaped #6 and #11 gauge wire forms for accurate centering and ease of use in the reinforcing of concrete joists and other pre-cast concrete products.

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Send for prices, literature, samples TODAY!

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Serving the Concrete Products Industry  
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## All Concrete Conveyor System at Maule



Four cranes swing the last 100-ft. single-T section into place, completing the world's first single-T conveyor system for Maule Industries.

An all-concrete conveyor system, believed to be the world's first, has been completed by Maule Industries at the company's Red Road plant in Miami, Fla.

The system is 250-ft. long, and is made of three pre-cast prestressed single-T sections resting on three concrete piers.

The unprecedented adaptation of single-T construction for a conveyor system was made to give sufficient strength to the 100-ft. free spans between supporting piers.

The structure was built by Maule, one of the nation's leading manufacturers of concrete products, to avoid the effects of weather on steel systems. The concrete structure will be maintenance-free, Maule claims.

Erection was completed in three days following fabrication of the sections. The conveyor will carry a dead or live load of 40 lbs. per square foot.

The new system eliminates a suspended ceiling, reduces wall height, and combines fireproofing and acoustical correction in one material that can be applied quickly. Durability is another advantage, since the insulating concrete does not deteriorate from moisture.

The system also permits electrical wiring to be run in thin wall conduit on top of the metal sheets, and then covered with the vermiculite slab. Ordinarily when the under side of a roof is exposed, rigid pipe conduit must be used in the floor slab, and the wiring brought up the walls and across the ceiling to the fixture.

## NOW A ONE-COAT COVER WATERPROOFING AGRASEAL

Ideal For Cinder Or Concrete Block, Light-Weight Aggregate, Or Porous Masonry



Here's a brush coat masonry finish that actually fills all voids ... halts capillary action, seals off microscopic air holes. Formulated to withstand oil, alkali, water, or smoke. Stable under heat or frost.

Quickly soluble Agraseal is easy to mix, has no lumps and there is no hair or alligator checking, no powdering. Can be brushed or sprayed on. Cures fast, saves days on every job. Easiest of all water repellent coverings to use—just add water! Packed in 25 and 100 lb. drums. White also available in 8-lb. cans. Comes in white and 9 smart decorator colors, all blendable for special effects. A gallon covers 50-75 square feet. For further information and samples write:



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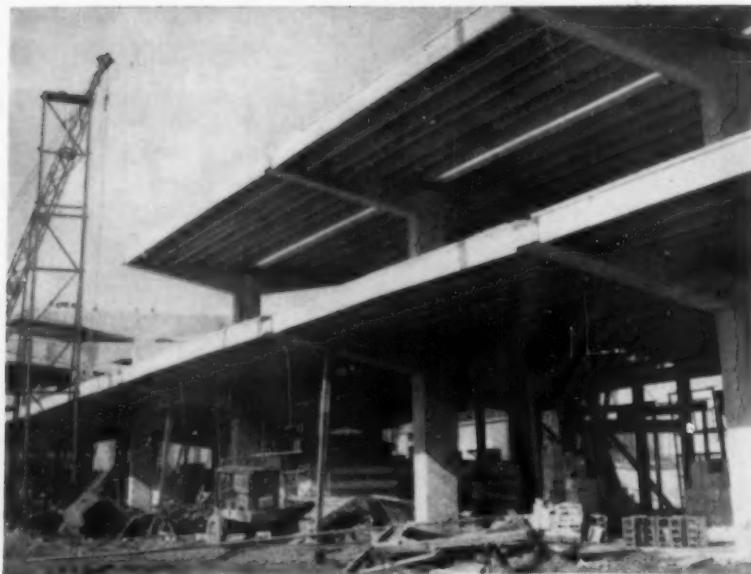
SEND YOUR AD IN TODAY TO:

**CONCRETE PUBLISHING CORP.**

400 W. Madison St.

Chicago 6, Ill.

## Six Story Motel Uses Precast Structure



*Motel built mostly of precast-prestressed concrete is shown here and below right as it looked during construction.*

What is believed to be the first such structure, a six story motel using a complete precast structural system, is being built in Macon, Ga. All units for the Town Pavilion Motor Hotel are being furnished by Macon Prestressed Concrete Co.

G. Paul Jones, Jr., of Macon Prestressed, says, "Although precast concrete construction has been used in several multi-story buildings, we know of no instance where precast concrete has been utilized to give the modern, striking lines, found in this motel, combined with more than 3 floors in height."

Erection of the 100 unit, six-story Town Pavilion Motor Hotel is presently under way. The unique feature of this 65 foot high structure is that, with the exception of the second story supporting frames of poured-in-place reinforced concrete and the penthouse of structural steel, the entire structure is of precast and/or prestressed concrete.

Included in the structure are 56 precast concrete Tee frames and nearly 500 prestressed concrete double tee floor slabs. The second floor consists of double tee slabs supported by poured-in-place reinforced con-



crete bents. The third, fourth, fifth, and sixth floors are designed using 16 precast Tee frames supporting 8,000 square feet of prestressed double tee floor slabs at each level. A steel-framed pent house, housing a restaurant and the owner-architects' offices, rests atop the sixth story.

Included in the project is a 30,000 square-foot, two-level garage, providing parking space for 170 cars. The upper deck is supported by 16 additional precast reinforced concrete Tee frames and over 150 prestressed concrete double tee floor slabs.

Designed and owned by Bernard A. Webb, Jr., architect, the motel is scheduled for completion in September, 1960. Structural design of the entire project was furnished by D. A. Polychrone, structural engineer, of Atlanta. H. G. Tinker, of Macon, is general contractor.

### Flexforms Joins Prescon Opens New Franchise



Flexforms, Inc., has become affiliated with the Prescon Corp., according to an announcement by Pres. Guy Braselton of Prescon.

Flexforms, Inc. is the originator of Flex-Tee, a prestressed, single stem, pitched roof deck member on which patents are pending. Braselton said that the new affiliation is expected to speed up the setting of franchise producers throughout the country for Flex-Tee, as well as its introduction to architects, engineers and contractors.

Shown above is a photo of one of the Flex-Tee units.

Flexforms also recently announced the franchise of Bullen Concrete Products Co., Pueblo, Colo., to manufacture the Flex-Tee line. The first units will be used at a nearby junior college now under construction.

### New Block Plant Opens in Hays, Kans.

Hays Concrete Products is the name of a new block plant recently opened in Hays, Kansas, with production of 2,800 block per day. The firm is owned and operated by Anton J. Klaus. Employment is eight, with the plant on a  $2\frac{1}{2}$  acre site.

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### **NEW ENLARGED SECOND EDITION**

Block producers who have bought the Second Edition of William Grant's famous book are lavish in their praise of the new material included and the updating of subjects that were covered in the first edition. Many have re-ordered enough copies for each of their key people.

We suggest you order today on a money-back guarantee of satisfaction. Payment with your order please.

### **MANUFACTURE OF CONCRETE MASONRY UNITS**

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Classified advertising copy may be ordered only in even column inch multiples, minimum one column inch, at the rate of \$10.00 per column inch. Closing date for classified advertising copy is the 4th of the month preceding. All orders and copy should be sent to Concrete Publishing Corporation, 400 West Madison St., Chicago 6, Illinois.

## PLAIN PALLET BLOCK MACHINE FOR SALE

We have recently taken several Fleming-180 Automatic Block Machines on trade. They are being offered for sale at \$1500 complete. For DETAILED information contact:

**FLEMING MANUFACTURING CO.**  
183 Fleming Ave. Cuba, Mo.  
Phone: Tuxedo 5-3351

## FOR SALE

We have a new Ludwig Hoist on hand which we are offering for \$550. It is complete and has never been used.

**BERGEN MACHINE & TOOL CO., INC.**  
189 Franklin Ave. Nutley 10, N. J.

## USED BLOCK MACHINES FOR SALE

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Phone: Tuxedo 5-3351

## FOR SALE

Hydraulic Brikcrete machine, 6 molds, 400 wood pallets (2 brick per pallet), 4 racks (total cap. 324 pallets), block cooker, 10 cu. ft. overhead mixer with skip hoist. All in very good condition. Price \$3,800. Less than 1/4 original cost.

**E. L. SMOOT**  
Y.M.C.A. Granite City, Ill.

## BLOCK SPLITTER FOR SALE

Fleming Block Splitter with automatic feed only \$1,525. Completely mechanical — only 8 moving parts. Maintenance costs averaging less than \$15.00 per machine. For full information with free booklet on split block write:

**FLEMING MANUFACTURING CO.**  
183 Fleming Ave. Cuba, Mo.  
Phone: Tuxedo 5-3351

## FOR SALE

Business establishment, concrete pipe manufacturing. Located within the Columbia Basin Project.

**QUINCY CONCRETE PIPE WORKS, INC.**  
Box 915 Quincy, Washington

## FOR SALE

Concrete block and building supply plant. Located in Central Michigan.

**BOX A-91, care CONCRETE**  
400 W. Madison St., Chicago 6, Ill.

## NEW PRODUCTS WANTED

Six major affiliated block plants in five midwest states producing block, prestress and precast want new products and lines to diversify operations.

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No Need to Shut Down — Latest Type Machine

Serving the South at Your Plant.

**SOUTHEASTERN PALLET CLEANING SERVICE**  
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PHONE: RAymond 4-4676 or ELgin 6-7957

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MATTAPAN 26, Mass.

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Our operator trucks cleaner to your plant. Approximately 300 plain steel pallets in popular sizes cleaned per hour. No interruption in production.

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31521 Cyril Drive Fraser, Michigan.  
Phone: Prescott 2-1135

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"SKIP BUCKET"  
DOUBLES  
EFFICIENCY!**



The newest  
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way  
for  
controlled  
pouring  
of concrete

WEIGHT —  
175 POUNDS

10 CUBIC FOOT BUCKET

**FEATURES:**

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- All welded construction
- Perfect pouring for tanks, vaults and other special forms.

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## COLORS

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COLOR YOUR CONCRETE WITH LANSCO CEMENT COLORS, available in 40 ATTRACTIVE shades. Suitable for all types of concrete products. Write for our new color card, copy of "Suggestions For Using Cement Colors," and for free samples and price list.

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 One 2 yd. Horizontal Drum Jaeger — \$200.00  
 One 5 yd. 1950 Challenge on 1952  
 Ford F-8 with Cook Chain Drive  
 Tandem — \$2,000.00  
 One 5 yd. 1950 Challenge — \$500.00  
 One 5 yd. 1952 Jaeger on GMC  
 Tandem — \$3,850.00  
 One 5 yd. 1954 ROCKET on 1954  
 White Tandem 2264 — \$4,250.00  
 One 3 1/2 yd. Rex on 1946 Ford Thorne-  
 ton Tandem — \$750.00  
 One 3 1/2 yd. ROCKET 1954 on Ford  
 F-700 1955 — \$2,000.00

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 YET?

(SEE PAGE 37)

No Matter What  
**SIZE...**



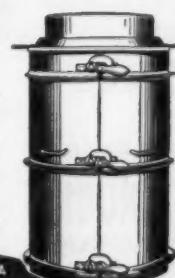
No Matter What  
**SHAPE...**

**QUINN CONCRETE PIPE FORMS***Set The STANDARD For Producing Quality Pipe!*

Over 50 years of experience go into the production of every Quinn Concrete Pipe Form. That's why the Quinn Heavy Duty form is recognized as the STANDARD the world over for producing quality concrete pipe at the lowest cost. Used in making pipe by vibration, spading, or tamping. Sizes for pipe 10" to 120" and larger. Tongue and groove (as shown) or bell end pipe in any length desired. No matter what size, shape, or length pipe you need, there's a Quinn pipe form made to fit your requirements. Write today for our FREE catalog and estimates.

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**Quinn** WIRE & IRON WORKS FOOKE, IOWA

**Smooth Casting! Longer Lasting!****EZY-STRYP  
METAL FORMS**

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HUNDREDS OF FORMS IN STOCK FOR  
QUICK DELIVERY. CATALOG FREE.

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**REVERSE LETTERING**

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- For permanent or changing inscriptions.
- Available in aluminum with pins or brass slides and panels.
- Use wherever numbers and letters are required on precast products.
- PD CONCRETE INSERTS • ELECTRIC VIBRATORS • BLACK & DECKER TOOLS
- SWISS FORM OIL

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America's Largest Manufacturer of  
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**SMITHKO  
CEMENT  
COLORS**

- The Standard of Comparison for Forty Years
- 65 Shades to Choose From Including Many New Colors

Send for Latest COLOR CARD,  
 Samples, Technical Brochure,  
 and Quotations.

SMITH CHEMICAL & COLOR CO.  
 53-57 John St., Brooklyn 1, N.Y.

**Converto Joins PCI**

Converto Mfg. Co., of Cambridge City, Ind., was admitted to membership in Prestressed Concrete Inst., effective April 1. The company, a manufacturer of steel forms, has only recently entered the prestressed field under its own name; earlier it had marketed forms through another organization.

**Truck-Man Names  
Haskell as SM**

Edward W. Haskell has been appointed the new sales manager for Truck-Man lift trucks, Jackson, Mich. Haskell will be in charge of all sales for both the high and low lift truck lines of the company, which is a division of the Knickerbocker Co.

**MB Field Rep**

Frank J. Kelly has been named a field representative for the Tampa, Fla., branch office of the Master Builders Co.

**ECONOMY STEEL FORMS**

used on Los Angeles'  
**\$6 million Sports Arena**



By renting Economy Steel Forms for large jobs, working capital is freed for other needs. Economy Forms are supplied with supervisory service. Quickly lock together with a simple twist of a clamp. Save time, money, materials — increase profits.

**FORMS FOR RENTAL OR PURCHASE**

Economy Forms Corp.  
 Box 128-H, H. P. Station  
 Des Moines, Iowa

Please send catalog on Economy  
 Steel Forms, and address of nearest sales of-  
 fice (there are 24 coast-to-coast).

Name \_\_\_\_\_

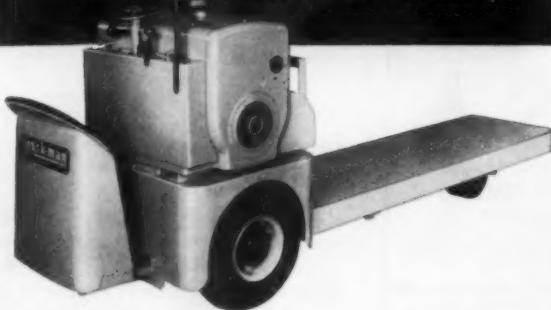
Firm name \_\_\_\_\_

Street address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

## NEW truck-man "75" MOVES MORE RACKS PER DAY

7,500 LB. CAPACITY



### PACKED WITH NEW FEATURES

- ★ Handles Your Largest Racks
- ★ Exceptional Ground Gripping Traction
- ★ Unequalled Flotation
- ★ "No-Spin" Differential
- ★ One Finger Power Steering
- ★ Unsurpassed Visibility
- ★ 94" Outside Turning Radius (with 60" platform)
- ★ Electric Starter

**A REAL BRUTE DESIGNED FOR BLOCK PLANTS**—Truck-Man's new "75" really hustles your racks. 75° wheel angularity on steering (rear) wheels—shortest possible turning radius • Wide profile, ground gripping tread tires on rear (23 x 8.00 x 10) will take you places no other platform truck can go • Ample power to bull through mud and snow • "No-Spin" differential keeps you moving as long as one drive wheel can get a bite • Forward and reverse transmission with simple controls for easy maneuverability at speeds up to 12 mph • Wide, load wheels carry the load • Power steering for easy control—MOVE MORE RACKS PER DAY, ANYWHERE, with a TRUCK-MAN "75".

#### OTHER TRUCK-MAN MODELS

High Lift Models for stacking and loading—Y-40, 4,000 lb. • Y-50, 5,000 lb. • Y-60, 6,000 lb.—Model DHP, 4500 lb. Platform Truck.

WRITE TODAY FOR LITERATURE ON PLATFORM AND HIGH-LIFT TRUCK-MAN MODELS

**truck-man LIFT TRUCKS**  
by the KNICKERBOCKER COMPANY  
570 LIBERTY ST., JACKSON, MICHIGAN

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## *The Versatile Shapes of CONCRETE*

The adaptability of concrete is self-evident in the variety of useful and ornamental products manufactured by Concrete Units, Inc., Austin, Minn. These range from building staples like chimney block, concrete brick and low silhouette building block to precast road markers, ornamental animals and birds, flower

pots, tables, stools, seesaw bases, bird baths and incinerators. A number of these appear in the picture of the company's attractive showroom and patio below.

Penn-Dixie cement is used by Concrete Units, Inc. and many other makers of precast concrete building materials and ornamental products.



# PENN-DIXIE CEMENT Corporation

REGULAR, HIGH EARLY STRENGTH AND MORTAR CEMENTS

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#### DISTRIBUTING PLANTS

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*Penn-Dixie means Permanent Dependability*

For more information use postcard facing page 40.

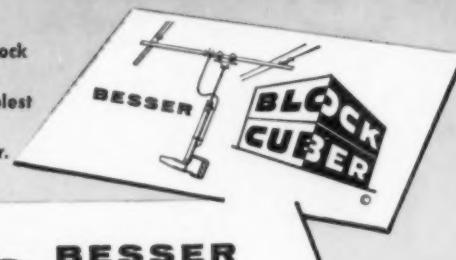
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# **block-O-mation**

**4 simple, economical ways to handle  
block or brick... entirely by POWER!**

**1** Besser Bridge Crane Block Cuber with self-cleaning cubing platform. The simplest method for lifting three 8" block (or equivalent) by power.



**2** Besser Power Cubeveyor for transporting finished cube to yard via power conveyor and gravity roller conveyor through opening in wall.



**3** Besser Turn-a-Rack with large power turntable — a synchronized system for loading block, exchanging rack and cubing block, at the Vibrapac.



**4** Besser Brickveyor for positioning brick for cubing. Receives brick in an upright position, then tips them over to horizontal position to make brick cubing possible.



• To meet the demand for greater efficiency and economy in handling block or brick, BESSER engineers have developed BLOCK-O-MATION — four ingenious ways by which you can handle block or brick *entirely by power*. Actually, BLOCK-O-MATION is automation as applied to block plants. The old hand method of cubing involved two men lifting as much as 320,000 pounds every day. Now — BLOCK-O-MATION eliminates this slow, heavy lifting by hand. It reduces labor costs . . . minimizes cull block . . . speeds up production.

Besser has a cubing system to fit any plant or operation. Write today for BLOCK-O-MATION Bulletin No. 128 illustrated here.

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FIRST IN CONCRETE BLOCK MACHINES

